

## **CERTIFICATION REFERENCE STANDARD**

### **NF MARK**

**DUTY MOBILE AUXILIARY SPACE HEATERS BURNING DEODORISED  
KEROSENE AND NOT CONNECTED TO A FLUE OR SPECIAL DEVICE FOR  
THE EVACUATION OF COMBUSTION PRODUCTS  
Called "MOBILE LIQUID  
FUEL HEATERS"**



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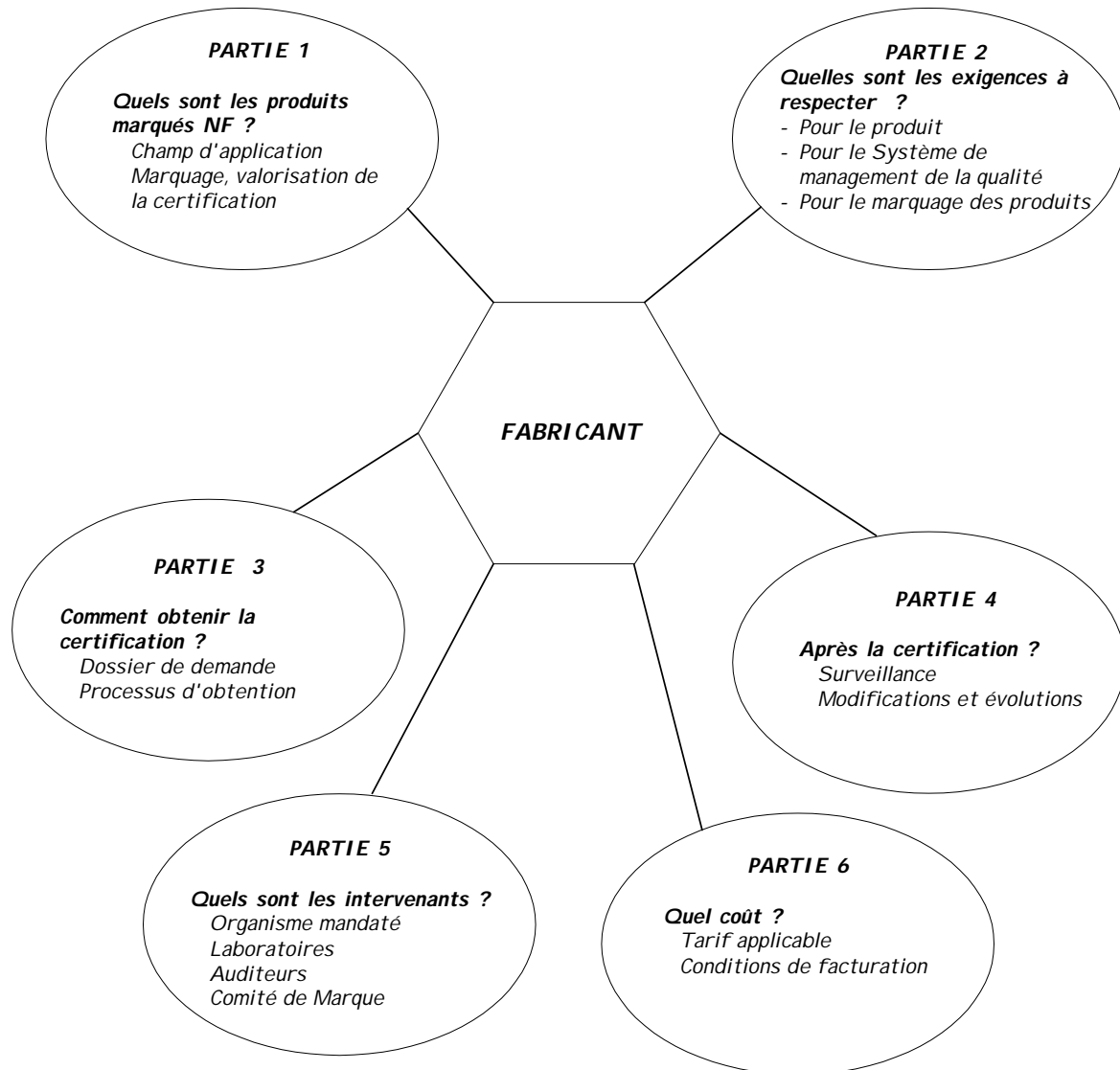
Date of the first application:  
1<sup>st</sup> October 1991

This revision of the certification reference standard was approved by the Manager of AFNOR Certification on 27 February 2012. It cancels and replaces any previous versions.

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## CERTIFICATION REFERENCE STANDARD



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## UPDATING

Part modified	Revision no.	Date of application	Modifications made
Whole document	0	1 <sup>st</sup> October 1991	Creation of the Certification Reference Standard
Whole document	12	November 2007	<p>Revision of the Certification Reference Standard</p> <p>Introduction of § 1.3. Certified products</p> <p>Rewriting of the part called « requirements concerning products » (§ 2.1.2)</p> <p>Inclusion of requirements for tank accessories made from plastic from revision 9 of the NF 128 certification rules</p> <p>Inclusion of the ISO 9001:2000 standard requirements applicable to mobile heating appliances</p> <p>Addition of new definitions and vocabulary; Example of application and processing (§ 3.1.1.)</p> <p>Changes to the admission application form</p> <p>Upgrading of sampling requirements for testing</p> <p>Implementation of a production site audit after admission to the NF mark and before the certified products are put on the market (§ 3.2.6.)</p> <p>Changes to the frequency of follow-up audits (§ 4.1.1.)</p> <p>Clarification on the decisions and notifications on suspension arrangements, and conditions for restoration (§ 4.1.8.)</p> <p>Introduction of sustaining request requirements (§4.2.8.)</p>
Whole document	13	24 November 2010	<p>Revision of the Certification Reference Standard</p> <p>Change in the authorised organisation</p> <p>Modification of the NF logo</p> <p>Inclusion of the ISO 9001:2008 standard requirements applicable to mobile heating appliances</p> <p>Definition of product range (§ 3.1.1.)</p> <p>Inclusion of the assessment process for the acceptance of a new type of appliance in a factory that already has the NF mark (§ 3.1.1.)</p>
Whole document	14	27 February 2012	<p>Revision of the Certification Reference Standard</p> <p>Modification of the NF logo</p> <p>Modification of the order concerning fuel (§2.1.2.1, 2.1.2.2.8 and 2.1.2.2.9)</p> <p>Modification of the test for monitoring combustion in a ventilated room (§ 2.1.2.2.6.1.)</p> <p>Modification of the acceptance procedure (§ 3.2.)</p> <p>Update of the types of tests carried out for modifications to accepted products (§ 4.2.3.)</p> <p>Precision in the event of a change of an authorised agent (§ 4.2.1.)</p> <p>Updating the invoicing of travel and accommodation expenses (§ 6.1.6.)</p>

## Part 1

### SCOPE – NF MARKING

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#### Preamble: Reference regulatory texts

This certification reference standard is part of the regulatory framework of the certification of services and products other than agricultural, forestry, food or sea services and products, provided for in articles L.115-27 to L.115-33 and R.115-1 to R.115-3 of the French Consumer Code, taking account of the opinion of the National Consumer Council dated 17 December 2007.

#### 1.1 SCOPE

The products covered by the certification reference standard are:

- intermittent-duty mobile auxiliary space convectors with flame using liquid fuel for mobile auxiliary space heaters of type R (radiant), RS (blower radiant) or SRE (blower with electronic regulation).
- wicks designed for type R convectors.

In the rest of the text, the term "the Mark" designates this application of the NF Mark.

#### 1.2 NF MARKING

The NF mark, owned by AFNOR, takes the form of the NF monogram exactly like the model below:

- for mobile liquid fuel heaters, the NF monogram complying with the following model:



- for accessories: the NF monogram exactly like the model below:



The graphics rules for the NF mark are available on request from CERTITA and on the [www.marque-nf.com](http://www.marque-nf.com) website.

The provisions concerning the use of the NF mark are described in part 2 of this certification reference standard.

#### 1.3 CERTIFIED PRODUCTS

The list of certified products is available on the [www.certita.fr](http://www.certita.fr) website

## Part 2

### QUALITY REQUIREMENTS TO BE OBSERVED

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#### 2.1 – REQUIREMENTS CONCERNING PRODUCTS

##### 2.1.1. Reference documents

- NF D 35-300 (December 92) - Movable supplementary heating devices operated intermittently, burning de-aromatized portable open oil-burning radiant convectors and not connected to a duct or to a special device exhausting combustion products.
- NF EN 60 335-1 (May 1995) and its amendments in force - "Safety of domestic electrical appliances and similar - First part - general rules" associated with NF EN 50 165 (August 1997)
- NF EN 50 106 (June 97): Safety of domestic electrical appliances and similar - Special rules for series testing of appliances within the scope of application of EN 60 335-1.
- Decree No. 92-1280 of 10 December 1992 amended by Decree No. 2004-945 of 1 September 2004 stipulating the safety requirements concerning mobile liquid fuel heaters and their spare parts

Mobile liquid fuel heaters shall satisfy the regulatory requirements related to electromagnetic compatibility, low voltage and batteries, packaging.

##### 2.1.2. Technical specifications

The detailed technical specifications below add to or complete the requirements in the reference texts. They do not replace these texts.

###### 2.1.2.1 General case

###### a) Test conditions and fuel used:

All tests are conducted with a liquid fuel compliant with the orders of 25 June 2010 and 18 July 2002.

The atmosphere-monitoring device and burner quality tests are carried out in a tight room. The other tests are done in a ventilated room with the following standard climatic conditions at ambient pressure:

- temperature 23°C +/- 5 °C
- relative humidity 30 to 90 % RH.

It is preferable to monitor these variations in conditions by recording.

The gas analyses should be done using selective methods enabling the operator to determine the following concentrations unambiguously:

- $5 \cdot 10^{-7}$  of CO, to an accuracy of  $\pm 2 \cdot 10^{-7}$  of CO by volume
- $5 \cdot 10^{-5}$  de CO<sub>2</sub> by volume with a relative error of less than 5%
- $2 \cdot 10^{-7}$  of NO<sub>x</sub> by volume to an accuracy of  $\pm 1 \cdot 10^{-7}$  of NO<sub>x</sub> by volume

We recommend using an infrared absorption analyser for the CO and the CO<sub>2</sub> and an analyser for the NO/NO<sub>2</sub>.

b) Acceptance of reduced flow functionalities:

Regardless of the type of appliance (R, RS or SRE), two situations are possible:

- a) each rate is perfectly defined, i.e. each rate must be obtained by unambiguous positioning.
- b) there is a continuous permissible power setting range, that is to say that the consumption variation at maximum power is superior to 10%.

The tests carried out for each rate or for the maximum and minimum available power are those described in § 3.2 - 3.5.1 - 3.5.2 and 3.6 of standard NF D 35300, with the additional specifications applicable to them.

2.1.2.2 Regulation tests or observations:

2.1.2.2.1 Mechanical and thermal resistance:

The appliances should be constructed in such a way that no permanent deformation or other deterioration of any of the components can arise in normal conditions of transport, storage, use or maintenance.

The materials should have sufficient mechanical strength.

Assembly faults are not tolerated. No burrs or other blemishes should be observed.

No part likely to be handled by the user should have any sharp edges.

Parts or units known to be fragile and which could be subject to shocks should be protected.

In addition, arrangements must be made to prevent damage, especially that which could be caused by:

- hydrocarbon action at normal working temperatures (materials, seals, membranes, coatings or grease)
- corrosive action by combustion products
- ignition of leaking fuel.

#### 2.1.2.2.2 Flow measurement / Burner runaway:

##### a) Flow measurement

Whatever the type of machine, the flow is measured in a ventilated room in calm air conditions (air speed < 1 m/s at 1 m from the appliance).

The measurement time is 2 hours (after allowing 30 minutes for start-up and optimum adjustment). A mass reading is taken every 5 minutes; the consumption value considered is calculated as follows:

$$\text{Consumption} = \frac{\sum_{i=1}^{24} \left[ \frac{(m_i - m_0)}{(t_i - t_0)} \right]}{24}$$

With  $m_i$  and  $m_0$  in g,  $t_i$  and  $t_0$  in hour

The measurement time may be increased if requested by the manufacturer in writing.

The output is measured at the adjustments accessible to the user and allowing the maximum adjustment settings to be reached:

For the SRE type, they are the highest and lowest temperature settings accessible to the user.

For the R type, the setting positions are the two extremes of the power range.

Based on the power declared (P) by the manufacturer, consumption (cons.) is considered as complying if:

$$\text{declared consumption} - 10 \% \leq \text{measured consumption} \leq \text{declared consumption} + 10 \%$$

For measured consumptions below 100 g/h, the tolerance is  $\pm 10$  g/h.

Conversion from declared power in W and declared consumption is made using the constant 12 kWh/kg possibly rounded up to the nearest hundredth (on power exclusively).

The output is measured before and after endurance in order to check the heaters' evolution after ageing.

##### b) Burner runaway:

By "burner runaway" we mean observation of an increase in fuel consumption without intervention by the appliance user.

Tests are made to ensure that this situation cannot arise when the appliance is in steady state conditions at maximum flow.


This test is carried out during the flow measurement test. It is considered that there is burner runaway if the variation in hourly consumption over a period of 5 minutes, calculated between 2 consecutive observations (5 minutes apart), is greater than 10% of the hourly consumption calculated at 2.1.2.2.2.a.

During this test, the hot relighting quality is also tested (cf § 2.1.2.2.7.5).

#### 2.1.2.2.3 Lighting device:

The appliance should have a safe means of lighting built into it. This means that starting the burner should be done without removing the protection against shocks or the covering. Manual lighting should only be possible as long as the appliance's safety system remains active.



In all cases, a warning affixed to the heater shall indicate "  ignition fault, see user's manual"

To verify that the safety device is active, proceed as follows:

The power required to operate the built-in ignition device is measured after removal of the auxiliary power supply and application of a power source with an output just below that necessary for built-in ignition. The heater is ignited using an external device (match or lighter).

If this lighting is possible without dismantling, the test is continued in the conditions of the safety test against atmosphere deterioration. Criteria of this test must be observed for the paragraph to be validated.

#### 2.1.2.2.4 Accidental contact:

All flames or parts of flames occurring outside an enclosure should be protected by a device preventing accidental contact with persons or objects. A grill may be accepted as long as the distance between the bars is not more than 3 cm, or the opening in the grill is not more than 9 cm<sup>2</sup>. The appliance must also pass the stability tests.

The dimensional requirement is checked as follows:

A sharp edged cylinder, weighing  $1100 \text{ g} \pm 50 \text{ g}$  and  $30 \text{ mm} \pm 0.5 \text{ mm}$  in diameter, of which the end is bevelled to  $45^\circ \pm 1^\circ$  applied vertically (with the appliance lying down) should not enter under its own weight:

- into any of the areas in which there is a risk of burns,
- between the bars of the grill,
- between the frame of the grill and the body of the appliance.

#### 2.1.2.2.5 Temperatures:

##### 2.1.2.2.5.1 Test bench:

The appliance is placed in a trihedral made up of a 25 mm thick horizontal wooden panel, serving as a support, and by two 25 mm thick vertical wooden panels. One is placed as close as possible to the back of the appliance and the other against a side face.

A trihedral of at least 1mx1mx1m should be used; the surface should be coated with mat black paint. Thermocouples are incorporated into each panel in the centre of 10 cm squares; they are inserted into the panels from the outside face so that the soldered joints are 3mm from the surface facing the appliance.

The appliance is made to function at its maximum rate.

2.1.2.2.5.2 Requirements:

a) Covering temperature:

The temperature of the covering heater is measured on the measuring temperature device surfaces exposed to radiation generated by the heater walls and front.

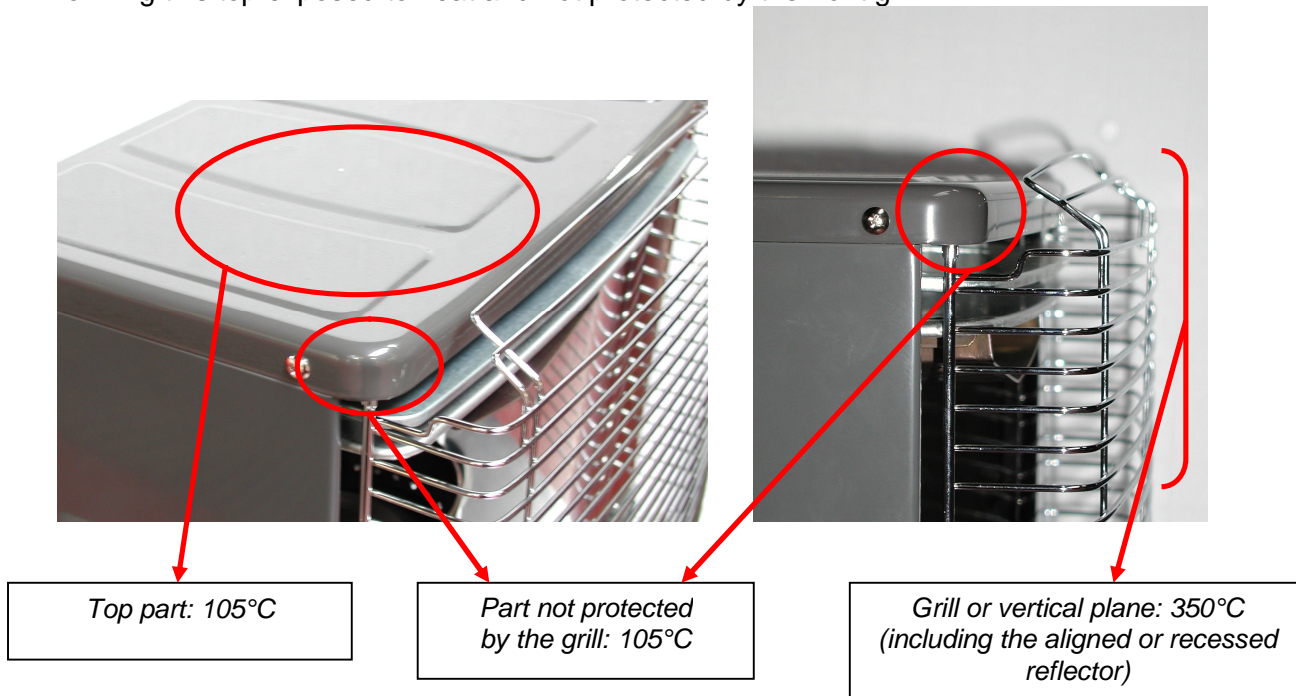
The limit in temperature rise compared with the ambient temperature is:

- for R type heaters:

During operation, the temperature of the grills and parts letting out heat must not exceed:

- 105°C for the top of the appliance
- 350°C for the bars of the front grill.

The top is considered to be the upper horizontal plane of the appliance together with any metal part forming this top exposed to heat and not protected by the front grill.



60 K for metallic or painted metallic parts,  
65 K for enamelled metallic parts,  
80 K for all other materials.

During the test, after two hours of operation the maximum temperature rise is measured on the adjacent faces.

If the temperatures of the sides of the appliance are likely to vary significantly between the left and right of the appliance, the tests should be repeated with test face placed on the other side of the appliance.

Surface temperatures specified above shall not be exceeded.

b) Maximum temperature of surfaces radiating heat

The grill is considered to comprise all metal bars forming a uniform surface, together with any part acting as a heat deflector that is included in the same plane.

However, the maximum recess of 20 mm limited to two bars or equivalent (deflector plates) at most is accepted with no temperature constraint applicable to it provided that the spaces between all bars (or equivalent) is always less than or equal to 3 cm.

The surface measuring device consists of a contact heat probe or similar.

The measurement is taken after operating the appliance for at least one hour.

In the factory, a different measuring technique is accepted provided that it has been demonstrated to be equivalent to the proposed device.

- for SRE type heaters:

The temperature of the surfaces should not exceed the limits indicated in § 2.1.2.2.5.2.b.

c) Blown air temperature (SRE type appliances) :

The temperature of the air blown by the heater must not be higher than 100°C in the heating area, one meter from the middle of the front face of the heater.

2.1.2.2.6 Combustion quality:

2.1.2.2.6.1 Combustion testing in a ventilated room:

Samples taken concerning the products of combustion are taken in such a way as to obtain average samples linked to a permanent state of the appliances. To collect all combustion products without affecting their path, at least in the zone likely to have an influence on combustion quality, a special device is used, as described in appendix 1 of this document. The base of the cone should correspond to the top of the appliances under test. The sides should be sufficiently high for the CO<sub>2</sub> content measured at the top of the cone to be slightly over 1%.

If this condition is not fulfilled the result will be overdimensioning of the device that could cause back-pressure at the base of the device. To remedy this, a diaphragm is placed at the top of the device to ensure that this CO<sub>2</sub> content is slightly over 1%. However, this diaphragm is not used if it changes the combustion quality.

For SRE heaters, gases are mechanically directed to the front when they are already heavily diluted by the blower fan.

Consequently, the bottom of the hood is positioned parallel to the hot air blowing grill.

Measuring must not disturb the heater operation. The calculation is obtained by subtracting the ambient CO<sub>2</sub> content from a measured content. Thus, it is possible to make the calculation with any CO<sub>2</sub> content between the ambient content and the target 1%, with an indication of these conditions in the measurement report.

To improve this ratio, scaling down the standardised hood is possible provided that all combustion gases are taken into account.

For the calculation of the CO<sub>2</sub> content in the products of combustion deprived of air and steam (neutral combustion), a neutral CO<sub>2</sub> value of 15% is used. For these tests carbon monoxide is metered by means of a selective method that makes it possible to unambiguously detect a concentration of 10<sup>-7</sup>.

The CO concentration linked to the products of combustion deprived of air and steam is given by the following formula:

$$(CO)_N (\%) = (CO_2)_N (\%) (combustion\ neutre) \times \frac{(CO)_M (dans\ échantillon\ prélevé) - CO_{ambient}}{(CO_2)_M - CO_{2\ ambient}}$$

with

$(CO)_N (\%)$	CO percentage linked to the products of combustion deprived of air and steam
$(CO_2)_N (\%)$	CO <sub>2</sub> percentage of 15% for deodorised kerosene
$(CO)_M$ and $(CO_2)_M$	CO and CO <sub>2</sub> concentrations measured in the average sample taken during the combustion test in a ventilated room by means of the special device, both expressed in the same units.
$CO_{ambient}$	CO concentration in the ambient air. To validate this test, the ambient CO concentration must not exceed the limit of 1 ppm.

The  $(CO)_N$  concentration in the combustion products must not exceed 50 ppm including measuring instrument errors.

#### 2.1.2.2.6.2 Combustion testing in a tight room:

The appliance, of which the atmosphere monitoring system has been by-passed according to the manufacturer's instructions, is lit and placed in the tight room.

It is checked that combustion can continue until the CO<sub>2</sub> concentration reaches 2.3%. At this point the CO level on the room should be less than 80 ppm.

*Note:* 2.3% of CO<sub>2</sub> produced is equivalent to 4% of oxygen consumed for the fuel under used.

For SRE types:

The test is carried out until a CO<sub>2</sub> concentration of 2.3 % or normal activation of the safety device provided by the manufacturer, with the atmosphere monitoring device short-cut as recommended by the manufacturer.

The measurement report indicates the CO<sub>2</sub> and CO value when the heater is cut off.

#### 2.1.2.2.7 Safety devices:

##### 2.1.2.2.7.1 Atmosphere monitoring device:

The appliance is lit and placed in the tight room described in appendix 2 of the present document. The changes in CO<sub>2</sub> and CO levels are recorded. The appliance should stop because the burner is totally extinguished before the CO<sub>2</sub> level reaches 0.8% +/-0.2%.

For this test, the initial conditions of exchange between the interior and exterior of the room are nil and the initial temperature is Ta. As the convectors, with full tank, are conditioned at Ta before the test, a duration of 4 hours is considered satisfactory.

During the test, the external temperature is maintained at Ta ± 2°C:

The tests are conducted for two Ta temperatures set at 5°C and 15°C ± 1°C.

*Note:* As Decree 2004-945 of 1<sup>st</sup> September 2004 makes it compulsory to install an atmosphere monitoring device independent of the conditions of use, the provisions of § 3.5.1 of standard NF D 35 300 (December 1992) indicating that the activation test of this system is only valid if the room temperature at the moment of cut-off is between 20°C and 35°C, are no longer applicable.

##### 2.1.2.2.7.2 Auxiliary energy supply:

Any failure of the auxiliary energy supply on the appliance should cause it to go into its safety mode. The following energies are identified:

- Mains electricity supply: RS and SRE type appliances must satisfy safety standards applicable to domestic electric heating appliances.
- Supply from a consumable battery: accidental removal should be impossible or detected. Polarity reversal should either be impossible, or have no effect on the operation of the appliance. In addition the battery housing should be accessible independently from the rest of the appliance and designed so that there is no risk of operational parts being damaged as a result of leakage from the batteries. The box containing these batteries should have a cover; this cover should only be able to be removed intentionally.

##### 2.1.2.2.7.3 Appliance stability tests:

###### a) Anti-shock device test

The largest horizontal dimension of the appliance is measured (base included) (L). Lsin 10° is calculated, i.e.: h=0,174.L

The appliance is then placed on the floor, alight and with the tank full, and then adjusted to its maximum rate.

Resting on its width, the appliance is lifted by its side handle to height h and released:

- the anti-shock device should react
- the test is repeated for both the appliance widths

b) Sliding test

The appliance is placed on the inclinable plane, free to move. The plane is inclined progressively to 20°, for the two longest dimensions of the appliance.

Between 7° and 20°, the appliance should not fall over. The safety device should operate, but in no circumstances should the stove flare up. Up to 7°, no abnormal fuel flow should be observed and in no circumstances should the fuel flare up.

This test is carried out on the 4 sides of the heater.

The tank shall be full and the heater ignited.

The inclination speed shall be equal to  $1.5 \pm 0.5$  angular degrees / second.

2.1.2.2.7.4 Safety against fire risk:

The following method tests that cloth blocking off half the radiation area of the stove in operation in steady state conditions does not catch fire

The following pieces of cloth are positioned successively:

- veiling (91% polyester - 9% linen, basis weight  $100\text{g/m}^2 \pm 10\%$ ) against the front face and the top of the appliance masking half of them,
- woven fabric (65% polyester – 35% viscose, basis weight  $110\text{ g/m}^2 \pm 10\%$ ) against the front face and the top of the appliance completely masking the top of the appliance.

As the values indicated may change with changes in these synthetic cloths, the test report should state the basis weight of the cloth used.

Flammability of the material is previously checked with a flame.

To carry out the test, 2 cloths are placed so as to cover half of the surfaces radiating heat, that is at least on the front face ("grille") and on top of the heater.

Each test lasts 10 minutes.

During these two tests the pieces of cloth used should not catch fire.

2.1.2.2.7.5 Lighting, relighting when hot:

The lighting device must be built into the appliance; this means that the burner must be able to be lit without removing the shock protection of the bodywork.

The lighting and relighting of the appliance, according to the instructions in the handbook should be safe regardless of the burner temperature. If the appliance is stopped by the operation of a safety device, relighting and operation should not be possible as long as the cause of the stoppage is still present.

The heater is re-ignited following cut-off periods of various duration (10 sec., 30 sec. and 1 min.) except if the heater automatically switches to safety for a longer period of time. In this case, re-ignition is attempted when this period ends. The operation carried out is considered as satisfactory if the heater re-ignites correctly on each attempt.

#### 2.1.2.2.8 Marking:

##### 2.1.2.2.8.1 Identification plate:

The appliances should have one plate, visible and firmly fixed, with the following inscriptions:

- Wording "Complies with safety requirements"
- The name and address of the manufacturer or of the party responsible for putting the appliance on the market for the first time
- Trade name of the device
- The type of appliance, the manufacturing serial number and the year of manufacture (given by its last two digits)
- The date of the certificate of conformity or the authorisation date of the right of use in force
- The rated calorific output in Watts
- The fuel consumption at maximum power expressed in grams per hour
- The type of fuel to be used


##### 2.1.2.2.8.2 Warning plates:


- The appliances should carry a second plate, visible and firmly fixed with the following inscription: "Warning: this appliance gives off combustion products. It should only be used intermittently. A safety device stops it operating if the room is insufficiently ventilated. Refer to the manual for information about ventilation and maintenance. Never place anything on the top or the front of the appliance. "
- The appliances should carry a third plate, visible next to the tank flap and firmly fixed, with the following inscription: "Warning: only use a liquid fuel that complies with the orders of 25 June 2010 and 18 July 2002".

##### 2.1.2.2.8.3 Indications appearing on appliances:

The inscriptions on the appliances should be written in one of the three official languages of the European Community. If French is not used, the handbook must provide the meaning in French and a diagram of the keys, together with the original text.


The use of pictograms is recommended. In this case, the meaning of pictograms shall be explained in the user manual.

In particular, in accordance with paragraph 2.1.2.2.3, a warning on the appliance must indicate "  ignition fault, see user's manual" (symbol described in NF X 08-003 standard).

In addition, in accordance with paragraph 2.1.2.3.1, a warning  referring to the manual must appear on the figurer on the tank compartment regarding how to fill it.

##### 2.1.2.2.8.4 Markings on packaging:

The following information must appear on packaging:

- the model reference,
- the trade name of the heater,
- the name of the manufacturer and/or the person responsible for marketing,
- a reference to the fuel to be used with an indication of the orders of 25/06/2010 and 18/07/02.
- the symbol "  before use read the manual"
- the warning "auxiliary space heater for intermittent operation",
- information concerning places where the recommended fuel is sold (for example, fuel brand name, or indication that the fuel is available at places where the heater is sold).
- The indication "safety system using direct measurement of CO2 level"

#### 2.1.2.2.9 User and maintenance manual:

The user's manual must at least be in French and must contain:

- its publication date or an identification of its version,
- the name and address of the manufacturer of the devices and/or person responsible for marketing,
- the trade name and the reference of appliances to which it applies,
- a table with (at least) the following technical characteristics:

Maximum heat output or maximum power, in W	
Minimum heat output or minimum power, in W	
Maximum hourly consumption in g/h	
Minimum hourly consumption in g/h	
"Not suitable for rooms smaller than, in m3 (and in m2)	(*)
Monitoring of the quality of ventilation (air renewal)	Direct measurement of the CO2 level / Indirect method of determining the CO2 level
Electrical power supply battery type (with explanation or diagram of battery installation in an Operating Instructions section, for types R 220/230 VAC, 50 Hz mains supply for types SRE	
Where appropriate, the electrical power consumption (ignition, continuous) in Watts for types SRE	

*Note: The same manual may be used for several heater references with the same brand name. These references must be clearly indicated on the 1st page. In this case, the characteristics table shall be presented for each reference.*

(\*) the minimum volumes and areas to be observed are shown in the table below:

Proposed class	Min. volume (m3)	Equivalent area (m2) (with ceiling height of 2.45 m)
2,000 to 2,500 W	32 to 39	13 to 16
2,501 to 3,000 W	39 to 48	16 to 20
3,000 to 3,500 W	48 to 54	20 to 22
3,501 to 4,000 W	54 to 62	22 to 25
4,001 to 4,500 W	62 to 69	25 to 28
4 501 to 4 650 W	69 to 72	28 to 29

➤ the warnings:

- "This mobile liquid fuel heater is an auxiliary space heater for intermittent operation. "
- "For correct use, comply with the following instructions:  
IT IS FORBIDDEN  
to use the mobile liquid fuel heater in caravans, boats and vehicle interiors,  
to use the mobile liquid fuel heater in rooms without adequate ventilation (see minimum volume to be heated in characteristics table) or situated below ground,  
for the user to take any action on the safety devices of the heater."
- "This type of heater must only be used in public reception rooms if the regulatory procedure has been followed. The user must inform himself of this procedure before use."



- "SAFETY WARNING  
each room in which the mobile liquid fuel heater is used must be fitted with a sufficient air inlet and efficient air outlet (minimum cross-section of 50 cm<sup>2</sup> for each port).  
Avoid any contact with the grill which may be very hot."
- For heaters with electrical power supply: "If the power supply cable for this heater is damaged, its replacement must be carried out by the manufacturer or by a repair workshop recognised by the importer, to avoid any danger."

- "FUEL WARNING  
The fuel used must only be a fuel for mobile liquid fuel heater complying with the orders of 25/06/2010 and 18/07/2002.  
The use of any other fuel is forbidden"

- "As a safety measure against fire, the tank must be filled:
  - with the appliance switched off,
  - in a different room to the one where the heater is installed,the user must always check that the filled tank is closed correctly, away from any source of heat or naked flames".

➤ The chapters:

- PREPARATION OF THE HEATER BEFORE USE:  
unpacking, installing the batteries, filling the tank, etc.
- INSTRUCTIONS FOR USING THE VARIOUS FUNCTIONS PROPOSED:  
ignition, extinction, adjustment, etc. (with diagrams, and/or photos, and/or pictograms)
- UPKEEP AND CLEANING – MAINTENANCE:  
Normal and regular, at the end of the heating season, before first use of the season, list of codes and their meanings, known solutions to operating problems, etc.

Note: For GS, the "maintenance" aspects must be grouped together. In multilingual manuals, the maintenance section shall always be contained in a separate sub-chapter in each language.

➤ Information concerning:

- The use of child-protection systems (grill, etc.), with a referenced accessory where appropriate.
- Repairs, replacement of important parts and work on the safety devices must only be carried out by approved specialists recognised by the manufacturer or importer.

The manual may indicate

- the field covered by CE marking (EMC, electrical safety, etc.) with the reference of the standards applied (this information must be taken from test reports specific to these fields),
- the heater information sheet
- the wick accessory information sheet
- an explanation of how to replace the wick for types R

The manual must not indicate:

- the term "cold surface". The term "temperate" is preferable.


### **2.1.2.3 Tests or observations that are specific to the NF mark:**

#### **2.1.2.3.1 Housing for the tank in the appliance:**

The housing for the tank should be sufficiently large to allow the tank to be inserted easily.  
The tank should only be able to be filled when it is removed from the appliance and combustion is stopped. This requirement is checked visually.

The orifice of the removable tank should have a minimum diameter of 20 mm.  
The removable tank should resist an internal pressure of 0.5 bars without breakage, cracking or leakage.

The appliance should be fitted with a base forming a retention tray for drips occurring during tank transfer.

A warning referring to the user manual shall appear on the compartment pane I:  (symbol described in standard NF X 08-003).

The meaning of this symbol must appear in the manual together with a warning concerning filling of the tank.

#### 2.1.2.3.2 Temperatures of parts likely to be handled

The temperature of parts likely to be handled (ignition, adjustment and safety devices) and surfaces up to 10 mm from these parts must not exceed the ambient temperature by more than the following:

- 35 K for metal or equivalent material
- 45 K for ceramics or equivalent materials
- 60 K for synthetic (plastics) and equivalent materials

During the temperature measurement test (§ 2.1.2.2.5), after two hours operation of the appliance, the maximum temperature rise of all parts and components is measured by contact thermocouples or equivalent devices.

#### 2.1.2.3.3 Measurement of the support surface temperature:

During the temperature measurement test (§ 2.1.2.2.5), after two hours operation, the maximum temperature rise of the support up to 50 cm in front of the appliance base is measured (thermocouples implanted in the trihedral).

The temperature of the support on which the appliance is placed (up to 50 cm in front of it) should not exceed the ambient temperature by more than 50 K.

#### 2.1.2.3.4 Measurement of the NO<sub>x</sub> concentration during monitoring of the combustion in a ventilated room:

During the test of combustion monitoring in a ventilated room, a special sample is taken above the burner in the undiluted combustion gasses, for if possible a CO<sub>2</sub> concentration above 5%.

For R and RS types, the measured concentration of nitrogen oxides should not exceed:

- 30 ppmv for NO
- 3 ppmv for NO<sub>2</sub> (NO<sub>2</sub> is considered to equal NO<sub>x</sub>-NO)

For SRE types, the measured concentration of nitrogen oxides should not exceed:

- 100 ppmv for NO
- 4 ppmv for NO<sub>2</sub> (NO<sub>2</sub> is considered to equal NO<sub>x</sub>-NO)

#### 2.1.2.3.5 Warning plate inscription endurance:

The check on the indelibility of the inscriptions is done as follows:

Rub the marking (10 times back and forth) with a cotton cloth used in compliance with the requirements of standard NF EN ISO 105 D01 (basis weight: approximately 270 g/m<sup>2</sup>) dampened with demineralised water.

Rub the marking again (10 times back and forth) with another cloth identical to the first one and preferably dampened with the reference fuel."

Acceptance criteria: after testing, the marking shall be readable and the label shall not be wrinkled nor show signs of separation from the heater.

#### 2.1.2.3.6 Endurance:

Conformity of the appliance with the requirements of §2.1.2.2.2.a, 2.1.2.2.6.1, 2.1.2.2.7.1 of this document is tested again after an endurance test of 250 hours operation with the appliance at its maximum rate.

For 250 hours, fatigue strength is tested by successively replenishing the fuel in the removable tank, with successive shutdown and restart, representative of its use. These hours are spread over approximately 20 days.

#### 2.1.2.3.7 Intermittence:

The heater must stop:

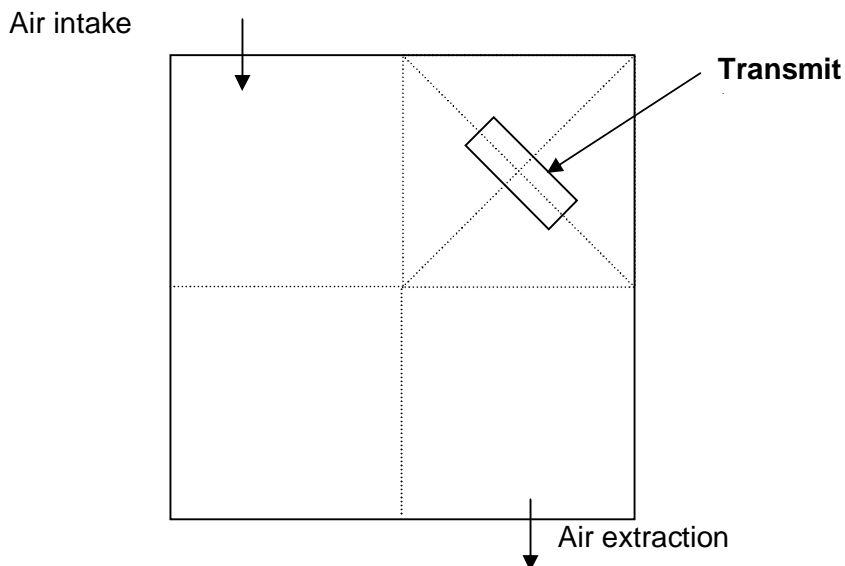
- either by removing the tank,
- or automatically after a maximum duration indicated by the manufacturer. This duration is checked with a tolerance of 2 %.

#### 2.1.2.3.8 Test of burner quality with poor ventilation during 8 hours' continuous operation:

The test is carried out in a room of  $39 \pm 4 \text{ m}^3$  (15 to 16  $\text{m}^2$  floor area) with adjustable and monitored ventilation. The air in this room must be renewed at a rate of  $0.4 \pm 0.1$  volume/hour.

The air intake must be at ground level and the outlet at a height of at least 1.8 m.

The appliance is placed in the centre of the area furthest from the room air outlet, as shown in the diagram below:



The air contamination safety device must be switched off, following the manufacturer's instructions.

The appliance is operated for 8 hours. The CO concentration is measured continuously (1 measurement per minute) in the centre of the room. The expanded uncertainty ( $k=2$ ) on the CO measurement below 30 ppmv must be less than or equal to 2 ppmv.

For R type appliances, the test is conducted for the maximum and minimum settings available to the user (one or 2 positions depending on the model). The ambient air temperature of the room must not exceed 35°C.

For SRE type appliances, the test is conducted for a set point of 23°C so that the appliance is made to operate throughout the self-adjusting setting range.

If a device is used to cool the air in the room during the test, it must not add or extract any air to or from the room during its operation, except for the air renewal defined above.

The mean hourly CO level is calculated by integrating the CO rate emitted by the appliance over the 8 hours of operation without interruption.

The result obtained should not exceed 10 ppmv.

#### 2.1.2.3.9 Maximum power

The maximum power is limited to 4650 W.

#### 2.1.2.3.10 For SRE type heaters

Only the marking of components in contact with the mains is mandatory.

#### 2.1.2.3.11 Additional functions

Additional functions proposed on each heater that would not be taken into account by the reference standard and this document, shall be the subject of tests, according to the information given by the manufacturer.

#### 2.1.2.4. Specifications for the accessories

##### 2.1.2.4.1 General

Some components (single part or set of parts making up a specific element) are decisive for the safety of the product bearing the NF Mark and are likely to affect its original performance.

Only original components or components considered as equivalent shall be used during maintenance operations or possible repair operations.

The NF Mark is designed to distinguish components approved by the Holder for use on his products from similar components which are not approved.

#### 2.1.2.4.2 Specifications for the wick of R (and RS) type units, with BF, BLCS and BL burners (all versions).

##### Characteristics

The wick is a controlled-motion component moving concentrically to a part called the wick guide.

Its location is very precisely defined based on its characteristics:

- diameter (inner or outer depending on the type of assembly - with or without a ring),
- position of attachment points to the wick positioning mechanism,
- exposed height, in up position,
- compound.

Its efficiency, in terms of performance, is measured:

- by the wick consumed (hourly consumption of the heater at stabilised maximum rate) in g/h
- by the residual quantity of carbon monoxide (CO) produced at the same maximum rate, as per two air supply modes (ventilated room and tight room).

These characteristics depend on the textile content of the various parts of the wick.

Tests to be performed are the following:

- dimensional check: the wick should be able to adapt to the heater and to move vertically without any problem before and after the tests,
- neutral CO measurement in a ventilated room as described in this document,
- residual CO measurement when the CO<sub>2</sub> reaches 2.3 % in a tight room as described in this document,
- hourly consumption measurement as described in this document,
- burner runaway as described in this document.

For these tests, the following specifications must be complied with:

- CO values in accordance with regulations
- For hourly consumption, the measured value shall fit in the drawn tolerance range obtained from the declared consumption of the heater in study with its original wick.

The verification is performed on 3 identical samples under the same conditions.

If a type of wick can be adapted to several appliances, the tests shall be carried out on each basic model defined by the type of burner and declared consumption.

#### 2.1.2.4.3 Specifications for CO2 detectors.

A CO2 detector is initially validated according to the following protocol:

The test is carried out using a sealed, transparent box in which two detectors are placed. Their operation is analysed by recording the reaction signal at the preset detection threshold.

The gases are injected in the sealed box at a pressure and speed that avoids any influence on the detector.

For a device operating on a physical principle, the detection threshold is checked using a gas mixture (CO2 + Air) for the following levels:

- A1 Concentration lower than the preset detection threshold,
- A2 Concentration causing the preset detection threshold to be exceeded by roughly 20%.

The following mixtures of interfering gases are required:

- B1 mixture of CO (roughly 50 ppm) and dry air
- B2 mixture of NO (roughly NO 100 ppm, NOx 105 ppm max.) and dry air.

A humidity generating system is set up using saline solutions and allowing the humidity to be varied (relative humidity at 20°C of 30%, 60% or 75%).

#### Details of a cycle:

- The detector is exposed to gas A1 for 2 hours in the sealed box. The detector must not react.
- Gas A1 is gradually replaced by gases B1 and B2. The detector must not react.
- Gases B1 and B2 are then gradually replaced by gas A2. The detector must react within 15 minutes.
- The sealed box is then aerated with ambient air (CO2 level roughly 400 ppm).

The test is repeated 200 times (200 cycles).

However, every 50 cycles, the samples, with their power supply switched off, are placed in the following climatic conditions:

- 24 hours at  $0 \pm 5^\circ\text{C}$ , then return to ambient temperature for at least 4 hours,
  - 24 hours at  $50 \pm 5^\circ\text{C}$ , then return to ambient temperature for at least 4 hours.
- After these climatic phases the saline solution is changed in order to carry out the following 50 cycles at a different relative humidity. The relative humidity levels are as follows:
- First period of 50 cycles: 75%  
Second period of 50 cycles: 75%  
Third period of 50 cycles: 30%  
Last period of 50 cycles: 60%

The success rate (correct response to the gas injected) must be 100% for both samples being tested.

At the end of the cycles, a test with low battery is carried out. This test consists in placing the detector in the sealed box where the CO2 level is above the detection threshold. The detector is powered by a very low current which is gradually increased to determine the minimum value at which the detector reacts. A saturation test is then carried out. The detector is placed in the sealed box, in contact with gas A1 for 2 hours. It must not react.

#### 2.1.2.4.4 Specifications for non-reusable cartridges / tanks

The test programme below takes into account:

- reasonably predictable stresses under consumer use conditions, starting from the sales outlet,
- characteristics specific to fuel for an oil-burning heating system, especially concerning the efficiency of packaging against ageing due to light, by recommending either material treatment or marking of the expiration date (replenishment date + 6 months),
- the verification of regulatory requirements,
- aspects specific to its use in a heating system.

The specifications described concern the characteristics deemed necessary for cartridges/tanks to perform their fuel tank and packaging functions. They shall be complemented by the notification of all markings being either regulatory, specific or necessary for proper use. These indications shall be written on cartridges in a indelible and legible way.

However, distribution channel stresses may entail modifications of the cartridge/tank as regards its shape, dimensions and sealing performance, which might be detrimental to its use as an oil-burning convective tank. Thus, to take this into account, a test sequence as per standard NF H 00-060 is scheduled to simulate the impact of land transportation on the cartridge/tank.

#### a) Complete test programme

Tests shall be performed according to the following sequence:

Phase 1: serviceability test concerning the "Cartridge/tank" function as per methods no. 1 to 9 and standard ISO 8317 or EN 862.

Phase 2: simulation test of a physical distribution channel of goods as per method no. 10.

Phase 3: test of the "tank" function as per methods no. 11 to 20 using the same cartridges/tanks which were subject to the test programme of phase 2.

Stress level taken into account

The stress level taken into account within the framework of the document corresponds to reasonably predictable use.

It is set on the basis of observations of consumer behaviour for parameters selected as representative of the cartridge/tank function.

For the tank function, the parameters selected are those imposed on the heater (standard NF D 35-300), complemented by parameters specific to this accessory.

*Note: the document does not take into account very high stress levels which may result from obvious carelessness, clumsiness and/or misuse.*

#### b) Test programme for the packaging function

Each elementary stress is simulated in a laboratory by a single, or isolated, test method.

Method No.	Description
1	Sealing test of closing device
2	Chemical compatibility and permeability test
3	Rigidity test
4	Stability test
5	Dynamic compression test



6	Impact test with dampened tumbler
7	Resistance test of gripping devices
8	Impact test by free fall on slanted plane
9	Retention test
10	Simulation test of a physical distribution channel of goods
NF EN 28,317	Child-proof resealable package test (if applicable)
NF EN 862	Child-proof non-resealable package test (if applicable)

The test programmes of methods no. 1 to 10 are described in Tables A, B and C.

They specify:

- The list of applicable individual tests
- Sampling required for tests
- Acceptance criteria

TABLE A

Title and sampling (S)	Main parameters		Storage conditions				Acceptance criteria
			a	b	c	d	
test method reference (TM)	Cartridges/tanks are filled at the rated capacity	Temperature	+ 20°C - 2°C	+ 40°C - 2°C	+ 50°C - 2°C	- 18°C - 2°C	
		Relative humidity:	-	-	-	-	
	The type of product is specified per test	Duration	(1)	48 hrs	30 days	48 hrs	
Sealing of closing device S = 3 TM 1	Real product for a cartridge/tank. Coloured fuel for 2 cartridges/tanks - storage standing (12-hour storage) - cartridge/tank turned over lying on closing side on white blotting paper (24-hour conditioning)		X X				Sign of the product on the blotting paper. No leakage allowed on the inner part of the plug.
Chemical compatibility Chemical compatibility S = 6 TM 2	Real product - new cartridge/tank - new plugging (2 cartridges/tanks), - new cartridge/tank - plug open then closed (2 cartridges/tanks), - new cartridge/tank - blocked plug (2 cartridges/tanks).				X		Weight loss > 5%. Normal operation of plugging system. No leakage or running when opened. Cartridge/tank leakproof when turned over for 1 minute. No deterioration (rupture, crack, split, etc.) on the cartridge /tank. No permanent distortion likely to affect the stability at
Rigidity S = 1 TM 3	Real product (2)  - lateral compression: F(daN) = 2(m1-m2)g/10 load application duration: 2 minutes			X			Product overflow.

TABLE B

Title and sampling (S)	Main parameters		Storage conditions				Acceptance criteria
			a	b	c	d	
test method reference (ME)	Cartridges/tanks are filled at the rated capacity	Temperature	+ 20°C ± 2°C	+ 40°C ± 2°C	+ 50°C ± 2°C	- 18°C ± 2°C	
		Relative humidity:	-	-	-	-	
	The type of product is specified per test	Duration	(1)	48 hrs	30 days	48 hrs	
Stability S = 1 TM 4	Real product (2) 24-hour storage - slope: 15° in relation to the vertical axis, in normal operating position		X				No tilting at 15°.
Dynamic compression S = 2 TM 5	Real product (2) (2 cartridges /tanks) - F (daN) = 20 - Load application duration: 1 minutes - 2 positions: vertical (1 cartridge/tank) horizontal (1 cartridge/tank)			X			No visible leak. No permanent distortion likely to affect the stability at 0° or normal operation of the plugging system.
Impact with small dampened tumbler S = 2 TM 6	Real product (2) Number of falls: 100 Storage: 4 hrs		X				During testing, no leak resulting from alteration of one of the cartridge/tank components (body, plug, protection, etc.) shall be found. Leaks caused by partial removal of closing device are allowed. After testing, the cartridge/tank must comply with test 9 requirements.
Resistance of gripping devices S = 2 TM 7	Real product (2) Number of falls: 2 Falling height with retaining device: 30 mm					X	No breaking of the gripping device or the cartridge/tank.

TABLE C

Title and sampling (S)	Main parameters		Storage conditions				Acceptance criteria
			a	b	c	d	
test method reference (ME)	Cartridges/tanks are filled at the rated capacity	Temperature	+ 20°C ± 2°C	+ 40°C ± 2°C	+ 50°C ± 2°C	- 18°C ± 2°C	
		Relative humidity:	-	-	-	-	
	The type of product is specified per test	Duration	(1)	48 hrs	30 days	48 hrs	
Impact by free fall S = 3 TM 8	Real product (2) Storage: 4 hrs Height of drop: 0.80 m - on the bottom (1 cartridge/tank) - on the plugging (1 cartridge /tank) - on the generator or the smallest side (1 cartridge/tank)		X				No leakage apparent immediately after the test  No deterioration detrimental to the normal operation of the plugging system.  No permanent deformation affecting the stability at 0°
Retention S = 3 TM 9	Real product (2)  Storage: 4 hours  Load to be applied:  F (daN) = 2 m 1 g/10  Application duration: 2 minutes  2 positions - vertical, plugging directed upwards - vertical, plugging directed downwards		X				No leak must be detected visually.
Simulation test of a goods TM 10 distribution channel S = 3	as per NF H 00-060 (June 91) - programme B severity level 6-E						

(1) Duration specified per test TM 10

(2) or non-hazardous product of equivalent density

c) Serviceability of the tank function

The specifications corresponding to the various parameters checked are described below:

No reuse

The cartridge/tank shall be non-reusable. The inability or at least the difficulty for users to reuse these cartridges/tanks shall be verified on drawing and by a visual check.

Handling

- Removability

The tank should be detachable from the heating system by simply pulling it using a handle accessible by opening the housing flap.

Inspection is carried out by a visual check.

- Adaptability

The cartridge/tank should adapt without any risk of incorrect positioning to all heaters indicated on its cartridge/tank; otherwise, a foolproof system must be provided.

Handling is performed when the heater is cold for all heaters models concerned.

Clogging

- Port opening

The port opening shall be  $\geq 20$  mm and compatible with the safety plug.

Inspection is carried out by measurement.

- Compatibility with the filling plug

Replacement of the transportation plug by the service plug shall not cause any sealing problem. Inspection is carried out during verification of the compatibility with a specific convector.

- Fuel level visibility

The fuel level shall be visible without moving the plug (without opening).

Inspection is carried out by a visual check.

Compatibility with a specific heater

Under no circumstances must the plastic tank provided for model X be able to be used on model Y. Systems must be found to prevent the consumer who has no fuel left from using this cartridge which might not be perfectly suitable for the stationary tank of the appliance.

In addition, the position of the gauge shall make it possible to easily check the fuel level on heater models for which this tank is designed.

Inspection is carried out by a visual check.

#### Sealing

##### - Of the tank, cold and hot

The cartridge shall withstand an internal overpressure of 0.5 bar (air) or 1.5 bar (water) for one minute.

The cartridge/tank is connected to an air supply system. The assembly is dipped into an open tank filled with water. The cartridge is pressurised to 0.5 bar. Leaks shall be detected by bubbling. No leak is allowed.

Three samples shall be tested.

The test shall be performed again in a 50°C bath.

##### - In operating position, cold and at maximum capacity

The test in § 3.5.4b of standard NF D 35-300 is performed.

The cartridge is positioned in the heater which is gradually tilted to 7°. No leak is allowed.

##### - In operating position, hot and almost empty

The almost empty cartridge/tank (between 75 and 95%) must be leakproof in its stationary tank position.

The test consists in operating a heater until the cartridge is empty by causing several shutdowns and restarts after cooling (2-hour sequence).

#### Temperature

##### - Temperature resistance

The cartridge/tank shall withstand a 50°C temperature without undergoing a definitive alteration of its characteristics (refer to test of the cartridge/tank function).

The test is performed in a 50°C constant temperature bath.

The cartridge/tank is connected to an air supply system.

The assembly is dipped into an open tank filled with water. The cartridge is pressurised to 0.5 bar. Leaks shall be detected by bubbling. No leak is allowed.

Three samples shall be tested.

##### - Temperature during handling

The temperature of the cartridge/tank shall not exceed the ambient temperature by more than 60K.

The temperature of the gripping area and the fuel area is measured during operation of the heating system.

##### - Fuel temperature

During the hot sealing test, a check of the fuel temperature increase in the tank shall be made to make sure that it remains below 20K following an operating sequence.

#### Minimum operating duration

The cartridge/tank capacity shall ensure minimal operation for at least 6 hours if the heater is set to the maximum rate.

The inspection consists in calculating the difference between the maximum consumption and the quantity contained.

## 2.2 REQUIREMENTS CONCERNING THE QUALITY MANAGEMENT SYSTEM

### 2.2.1 At the manufacturer's factory

The assessed quality management system for products concerned by the application of this mark must comply with: standard ISO 9001: 2008 - quality management systems – requirements.

The following chapters of the standard are applicable:

- 4 Quality management system
  - 4.1 General requirements
  - 4.2 Documentation requirements
- 5 Management responsibility
  - 5.1 Management commitment
  - 5.3 Quality Policy
  - 5.4 Planning
    - 5.5.1. Responsibility and authority
    - 5.5.2. Management representative
  - 5.6 Management review
- 6 Provision of resources
  - 6.1 Provision of resources
  - 6.2 Human resources
  - 6.3 Infrastructure
  - 6.4 Work environment
- 7 Product realisation
  - 7.1 Planning of product realisation
  - 7.2 Customer-related processes
  - 7.3 Design and development
  - 7.4 Purchasing
  - 7.5 Production and service provision
    - 7.5.1. Control of production and service provision
    - 7.5.2. Validation of processes for production and service provision
    - 7.5.3. Identification and traceability
    - 7.5.5. Preservation of the product
  - 7.6 Control of monitoring and measuring equipment
- 8 Measurement, analysis and improvement
  - 8.1 General
  - 8.2 Monitoring and measurement
    - 8.2.2. Internal audit
    - 8.2.3. Monitoring and measurement of processes
    - 8.2.4. Product monitoring and measurement
  - 8.3 Control of Nonconforming Product
  - 8.4 Analysis of data (points b, c, d)
    - 8.5.2. Corrective action
    - 8.5.3. Preventive action

None of the explicit requirements referring to notions of "continual improvement" are taken into account.

### General

The tasks and responsibilities in organising plant manufacturing inspections must be documented.

The manufacturer shall establish and keep updated the documents defining plant manufacturing inspections.

### Planning of product realisation - § 7.1 of standard ISO 9001: 2008

During planning of product realization, the manufacturer must take into account points a, b, c and d of Para.7.1 of the standard.

### Verification of purchased product – § 7.4.3. of standard ISO 9001: 2008

The manufacturer must check the quality of raw materials and input components used in the manufacture of products for which he holds the right to use the NF Mark.

For example, defined and regular inspections on reception or certificate of conformity with suppliers' technical specifications or general specifications.

Records must be made of inspections carried out indicating the acceptance criteria and decisions taken in the event of nonconformity.

### Identification and traceability – § 7.5.3. of standard ISO 9001: 2008

The manufacturer must prepare instructions for identifying the product with marking that conforms to the requirements of Para.2.3 below.

Traceability is a requirement of the NF mark; as a result, the provisions defined in standard ISO 9001: 2008 regarding the unique identification of the product must be taken into account.

This identification must ensure traceability and provide a history of the product.

### Validation of processes for production and service provision – Para.7.5 of standard ISO 9001: 2008

Before bringing the implementation of manufacturing equipment, the applicant or subcontractor must inspect this equipment. A routine maintenance program for this equipment must be prepared. Work instructions must be /written, taking into account the position assignments and the definition of execution criteria (reference to standards, technical requirements, specifications).

In case of subcontracting, a precise specification must be prepared for the subcontractor.



Preservation of the product - § 7.5.5. of standard ISO 9001: 2008

The manufacturer must preserve product conformity throughout all internal operations and during delivery to the agreed destination. This preservation must include identification, handling, packaging, storage and protection. Preservation must also apply to the product components.

Storage

The manufacturer must use the specified storage areas or rooms to prevent the damaging and deterioration of the product pending use or delivery.

To detect any damage, the condition of the stored product must be assessed at appropriate, predetermined intervals.

Control of monitoring and measuring equipment - § 7.6. of standard ISO 9001: 2008

Requirements a, b, c, d, e, of the standard must be taken into account for inspection and test equipment likely to have an influence on tests carried out for NF mark purposes. They must be:

- calibrated or verified at specified intervals, or before their use, against measurement standards that are traceable to international or national measurement standards (if these standards do not exist, the reference used for calibration must be recorded)
- adjusted or re-adjusted as often as necessary
- identified so that calibration validity can be determined
- protected against adjustment that could invalidate the measurement result
- protected against any damage and deterioration during handling, maintenance and storage.

In addition, the manufacturer must assess and record the validity of earlier measurement results if an instrument is found not to conform to the requirements. The manufacturer must undertake the appropriate actions on any product affected. The records of calibration and verification results must be conserved.

The inspection, measuring and test equipment must be used in such a way as to ensure that measurement uncertainty is known and is compatible with the required level of accuracy.

The manufacturer shall have the following equipment at his disposal to conduct the tests according to NF D 35300:

- tight room (this room shall be controlled at least once a year or before the beginning of the manufacture of devices bearing the NF Mark; its homogeneity in gas must be controlled satisfactorily),
- hood,
- gas analysers (CO<sub>2</sub>, NO<sub>x</sub>, CO low concentration),
- temperature measurement device,
- balance,
- inclinable plane or similar,
- surface temperature measurement by contact probe or equivalent.

Product monitoring and measurement - Para.8.2.4 of standard ISO 9001

The manufacturer must monitor and measure the product characteristics to verify that the requirements for the product are satisfied.

For each new mobile liquid fuel heater submitted for the mark, all tests provided for in the Certification Reference Standard for the NF – Mobile Liquid Fuel Heater application are to be conducted by the manufacturer in order to validate the design.

In particular, for any new design of appliance the manufacturer must have ageing test results confirming fitness for use during a given period as claimed in the NF file (see Part 3, Form 1.c.1) concerning:

- materials used for tanks
- operating devices
- safety features control systems
- the body exposed to temperature and gases.

For the purposes of the NF mark, the inspection plan must always include at least the tests and inspections referred to below:

- ❖ As a final check, the inspection plan set up must guarantee the conformity of the products with the specifications of the reference standards. It must include at least the tests referred to below.
- ❖ Regular tests at the end of the assembly line shall be performed on the packaged products. Their frequency is to be determined by the manufacturer (verification of the presence of all elements, of the assembly instructions, of the NF informative sheet, of the different markings (decree, NF Mark etc.))
- ❖ The tests below:

**Devices of type R, RS and SRE:**

Tests as per standard NF D 35 300 and additional specifications of this part § 2.1: :

- consumption,
- CO<sub>n</sub> and NO<sub>x</sub> content.
- reactivity of the atmospheric safety device with temperature and CO<sub>2</sub> content statement of the tight room during reaction. The reactivity test of the 5 °C atmosphere safety device may be done elsewhere than in a tight room, provided the 5 °C safety devices are tested alone, before being installed on the appliances,
- measurement of CO at 2.3% of CO<sub>2</sub>.

Test frequency:

As per NF D 35 300: (appliances sampled from the end of the production line).

Per basis reference of mobile liquid fuel heaters (whatever the commercial designation of the device) and per production line:

- 1 test every 3,000 devices if the batch contains more than 3,000 devices in continuous production (even spread out over several days)
- 1 every 1,000 devices if the production is higher than 3,000 devices, whether it is continuous or not.

*Note: When the batch exceeds 3,000 units, sampling must be spread over time in order to be representative.*

### **Devices of type RS and SRE:**

Electrical tests according to NF EN 50-106 (electrical tests): on each appliance and on each line.

- ❖ All results of these controls shall be registered with an indication of the criteria concerning acceptance and decisions taken in the case of non-conformity.
- ❖ The other electrical tests can be considered to be type tests and subcontracted if necessary.
- ❖ Proof of conformity with the acceptance criteria must be conserved. The records must indicate the person(s) authorised to release the product.

### Control of nonconforming product - § 8.3. of standard ISO 9001: 2008

The manufacturer must ensure that product that does not conform to relevant requirements is identified and controlled so that it cannot be unintentionally used or supplied.

Inspections and associated responsibilities and powers for processing nonconforming products must be defined in a written procedure.

The manufacturer must process a nonconforming NF-marked product in one of the following ways:

- by conducting actions to eliminate the nonconformity
- by authorising its use, release or acceptance with a waiver; in this case, prior agreement must be obtained from the authorised organisation
- by conducting actions to prevent its use (scrapping for example)

Records of the nature of nonconformities and all follow-up actions undertaken, including waivers obtained, must be conserved.

When a nonconforming product is corrected, it must be verified again to demonstrate conformity with the requirements.

When a nonconforming product is detected after delivery or after it has been put into use, the manufacturer must take suitable action to inhibit the real or potential effects of the nonconformity.

### Corrective actions - § 8.5.2. of standard ISO 9001: 2008

The manufacturer must conduct actions to eliminate the causes of nonconformities so that they do not recur. The corrective actions must be appropriate to the effects of the nonconformities encountered.

A written procedure must be prepared defining requirements for:

- carrying out a review of non-conformities (including customer complaints)
- determining the causes of non-conformities
- assessing the need to undertake actions that will prevent the non-conformities from recurring
- determining and implementing the actions required
- recording the results of actions implemented
- carrying out a review of corrective actions implemented.

Records indicating complaints made against certified products and their processing must be produced and conserved.

### **2.2.2 At the premises of the authorised dealer (distributor) or his representative for customer services**

The manufacturer's quality management system for products concerned by the application of this mark must comply with: standard NF EN ISO 9001: 2008 - quality management systems – requirements.

The following chapters of the standard are applicable:

- 4 Quality management system
  - 4.1 General requirements
  - 4.2 Documentation requirements
- 5 Management responsibility
  - 5.4 Planning
  - 5.5 Responsibility and authority
- 6.1 Provision of resources
  - 6.2 Human resources
  - 6.3 Infrastructure
  - 6.4 Work environment
- 7 Product realisation
  - 7.1 Planning of product realisation
  - 7.2 Customer-related processes
  - 7.4 Purchasing
  - 7.5 Production and service provision
    - 7.5.1. Control of production and service provision
    - 7.5.2. Validation of processes for production and service provision
    - 7.5.3. Identification and traceability
    - 7.5.5. Preservation of the product
  - 7.6 Control of monitoring and measuring equipment
- 8.2 Monitoring and measurement
  - 8.2.3. Monitoring and measurement of processes
  - 8.2.4. Product monitoring and measurement
- 8.5.2. Corrective action
- 8.5.3. Preventive action

None of the explicit requirements referring to notions of "continual improvement" are taken into account.

2.2.2.1 For liquid fuel heaters:

Associated services (product support and training) - § 6.2. / 7 / 8.2 of standard ISO 9001: 2008

The distributor shall prepare and keep up-to-date documents to perform, check and report that these services allow the product to be kept in conformity with the NF- Mobile liquid fuel heater – application certification reference standard in force.

These documents deal in particular with the following points:

- technical documentation (schemes, operating modes, ranges) supplied by the manufacturer
- working documents made from the documents supplied by the manufacturer (work instructions, base for interventions records...)
- control of verification, measurement and test equipment.
- The services shall be provided by authorised persons.

They must be recorded.

Corrective and preventive actions - § 8.5.2. of standard ISO 9001: 2008

The distributor shall prepare and keep up-to-date documented procedures to implement corrective actions.

The distributor shall implement and record any changes in documented procedures resulting from corrective actions.

The corrective action procedures shall include:

- the search for the causes of product non-conformity as well as the record of the results of this search,
- determination of the corrective actions required to eliminate the causes of nonconformity,
- effective recording and handling of customer complaints and product nonconformity reports,
- provisions allowing the effective implementation of the corrective action.

Recording and processing of complaints regarding certified products shall be carried out and maintained.

Purchasing –Para. 7.4 of standard ISO 9001: 2008

Spare parts, such as wicks, burners, removable tanks, etc. shall be manufactured according to the manufacturer's specifications.

The distributor shall:

- define his criteria for selecting spare parts to be procured (and possibly draw up specifications with his suppliers),
- draw up and keep an up-to-date list of approved suppliers,
- draw up and keep up-to-date records relating to the quality of the possibly accepted manufacturers.

**2.2.2.2** For the accessories:

Purchasing

The distributor shall prepare and keep up-to-date documented procedures to ensure the purchased accessory complies with the specified requirements.

The distributor must:

- define the specifications of accessories to be procured (and possibly draw up specifications with his suppliers)
- define the criteria applied for selecting suppliers,
- draw up and keep an up-to-date list of approved suppliers,
- draw up and keep up-to-date records relating to the quality of the possibly accepted manufacturers.

The purchase orders shall clearly define the accessory ordered (technical characteristics, quantities, deadlines, etc.), refer to the technical specifications, to the specifications and possibly contain an application for the transmission of analysis certificates.

The specifications shall specify the following requirements.

The accessory manufacturer shall prepare and keep up-to-date documented procedures defining the rules adopted to identify the accessory in a unique way, throughout all production stages (from reception up to the end product), drawings, marking, tagging, traveller sheet.  
This identification must ensure traceability and provide a history of the product.

## 2.3 REQUIREMENTS CONCERNING PRODUCT MARKING

### 2.3.1. The NF logo

The NF logo must ensure identification of every certified product.

The NF certified product must bear a designation and identification distinct from non-certified products.

The holder must only use the NF logo to distinguish certified products, without risk of any possible confusion with other products, particularly with non-certified products.

The graphic tools of the logo (film, floppy disk, etc.) are available at AFNOR's communication department (Tel.: 01 41 62 80 00) and on the [www.marque-nf.com](http://www.marque-nf.com) website, in the "holders" space.

The holder is recommended to submit all documents relating to the NF mark to CERTITA beforehand.

### 2.3.2. Reference texts

Communication of information concerning product and service certification is governed by regulations which seek to make the meaning of labels, certification marks and so on apparent to users.

Accordingly, article R 115-2 of the French Consumer Code stipulates that:

“Where reference is made to certification in advertising, on labelling or the presentation of any product or service, and in commercial documents of any kind relating thereto, the following mandatory information must be provided to the consumer or user:

- 1) The designation or company name of the certifying body or the collective certification mark,
- 2) The name of the certification standard used,
- 3) The manner in which the certification standard can be consulted”

### **General rules of the NF Mark**

The purpose of the marking rules given below is to guide the holder in how to meet the regulations and the requirements of the NF mark. Articles 4, 11, 14 and 15 of the general rules of the NF mark specify the conditions of use, of validity and the penalties in the event of abusive use.

### 2.3.3. Product marking

*For mobile liquid fuel heaters:*

The NF mark must be accompanied by the following information:

- address of the head office of AFNOR Certification: 11, avenue Francis de Pressensé 93571 Saint-Denis La Plaine Cedex or [www.marque-nf.com](http://www.marque-nf.com),
- name of the manufacturer or agent or of the brand name,
- reference to standard NF D 35-300
- reference of the certification reference standard of the "NF 128" mark and identification number of the holder of the MOBILE LIQUID FUEL HEATERS NF mark and of the production plant (4-character code, provided by the Appointed Organisation, of the type --/--), commercial name of the product,
- information imposed by reference standards and regulations, in particular the sentence "complies with safety requirements" and the date of approval for the right to use the NF mark, considered as the standard date,
- code ensuring traceability of the final product and of the following components:
  - \* radiant type heaters (R): burner, wick, removable and fixed tanks, safety system,
  - \* blower radiant type heaters (RS): same components as R type heaters plus the fan motor,
  - \* blower type heaters with electronic regulation (SRE):  
injected air motor: fan motor, carburetion motor, ignition device, removable and fixed tanks, if possible electronic PCBs,
- serial number or batch number.

*For accessories:*

item reference,  
code ensuring traceability of the final product,  
heater model for which they are designed (on the packaging).

The mandatory markings, in particular the NF Mark, the name of the manufacturer and the traceability code, shall be readable, indelible and non-removable and shall be put on each mobile liquid fuel heater and / or accessory.

**Reminder:** In case of suspension or withdrawal decision, or of nonconforming product, the manufacturer shall cease any reference to the NF mark on the products or in documentation.

The dimensions of this marking and means used are left to the manufacturer's discretion provided the information is legible. Should the height of the logo be less than 15 mm, the words "CERTIFIE BY CERTITA" are optional.



### 2.3.2. Information sheet

An information sheet must be attached to each product. The information must necessarily include:

- the NF logo with the name of the application
- the name of the certifying body and its address
- the identification of the references used as a basis for approval ( NF 126 certification reference standard)
- the holder's identification number
- the main certified characteristics:
  - *For convectors:*
    - . Ignition device safety
    - . Heat output
    - . Efficiency of safety devices
    - . Stability
    - . Control of NO<sub>x</sub> content in combustion products
    - . Control of combustion quality (no CO) Operating durability
    - . Operating durability
    - . Intermittent operation
  - *For wicks:*
    - . Suitability for heater(s) for which the wick is submitted for approval
    - . Heat output for this(these) heater(s)
    - . Combustion quality control

It is the manufacturer's responsibility to select a presentation and format for this sheet. By way of example, a model is given below for mobile heaters and wicks.

For convectors:

AFAQ AFNOR Certification - 11, RUE FRANCIS DE PRESSENSE  
93571 LA PLAINE SAINT-DENIS CEDEX

INFORMATION SHEET

The NF Mark guarantees  
the quality of this item  
according to French standards  
and Certification Reference Standard for  
the NF 128 application



MOBILE LIQUID  
FUEL HEATERS  
NF 128 --/--

**COMPLYING WITH STANDARD NF D 35-300 AND ADDITIONAL SPECIFICATIONS  
DEFINED BY THE CERTIFICATION  
REGULATIONS FOR THE NF 128 MARK**

**MAIN CHARACTERISTICS CERTIFIED:**

- . Ignition device safety
- . Heat output
- . Efficiency of safety devices
- . Stability
- . Control of NO<sub>x</sub> content in combustion products
- . Control of combustion quality (no CO) Operating durability
- . Operating durability
- . Intermittent operation

**USE AND MAINTENANCE RECOMMENDATIONS**

Refer to the leaflet appended with the appliance and the safety plate on the appliance.

**Reference and batch or serial number of the item: refer to the product**

**If not satisfied, first of all consult:**

***(Name and contact numbers of the manufacturer  
or marketing manager)***

**If any doubts remain, you can write to:**

**CERTITA  
39/41, rue Louis Blanc  
92400 COURBEVOIE**

**For wicks:**

AFAQ AFNOR Certification - 11, RUE FRANCIS DE PRESSENSE  
93571 LA PLAINE SAINT-DENIS CEDEX

**INFORMATION SHEET**

The NF Mark guarantees  
the quality of this item  
according to French standards and  
Certification reference standard for the NF  
128 application



NF 128 --/--

**COMPLYING WITH STANDARD NF D 35-300 AND ADDITIONAL SPECIFICATIONS  
DEFINED BY THE CERTIFICATION  
REGULATIONS FOR THE NF 128 MARK**

**MAIN CHARACTERISTICS CERTIFIED:**

- . Suitability for heater(s) for which the wick is submitted for approval
- . Heat output for this(these) heater(s)
- . Combustion quality control

**USE AND MAINTENANCE RECOMMENDATIONS**

Refer to the leaflet appended with the heater and to indications shown on the wick's packaging.

**Reference and batch or serial number of the item: refer to the product**

**If not satisfied, first of all consult:**

***(Name and contact numbers of the manufacturer  
or marketing manager)***

**If any doubts remain, you can write to:**

**CERTITA  
39/41, rue Louis Blanc  
92400 COURBEVOIE**

Accordingly, the Applicants and Holders of the NF Mark are recommended to base the quality system set up for the products intended to be certified on the typical model defined by Standard NF EN ISO 9001 and draw up the quality plans and quality manual in compliance with the requirements specified in said standard.

The implemented Quality Assurance system must be the subject of documentation issuing made available to the Authorised Body which shall decide whether this system is designed to achieve the set objectives and shall verify, on the production site, whether it has in fact enabled these objectives to be achieved.

The Quality Assurance documents are both:

- descriptive:

- general organisation rules
- procedures relative to the achievement and verification of quality.

- and a technical character:

- definition of machine verification procedures
- definition of methods for measuring and verifying characteristics

### **2.3.3. Documentation**

The compulsory colours for the NF monogram in the documentation are:

"NF" letters:	white
Background of oval:	Pantone blue 2955 C

The use of other colours is subject to a waiver request made to CERTITA.

References to the NF Mark in commercial documents (order confirmations, invoices, delivery slips, advertising leaflets, catalogues, etc.) must be clear enough to avoid any risk of confusion between marked products and others.

The holder must, on request from CERTITA, send any document in which reference is made, directly or indirectly, to the NF mark.

**Appendix 1: Description of the smoke capture systems for the combustion test in a ventilated room.**

Dimensions en millimètres

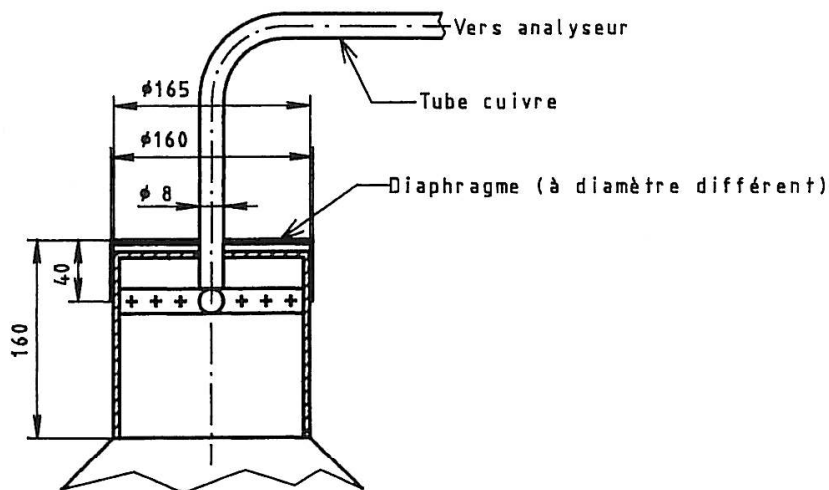


Figure B.1 : détail du dispositif d'aspiration et diaphragme

Les cotes indiquées sont indicatives et doivent correspondre aux plus grandes dimensions des appareils concernés par cet essai.

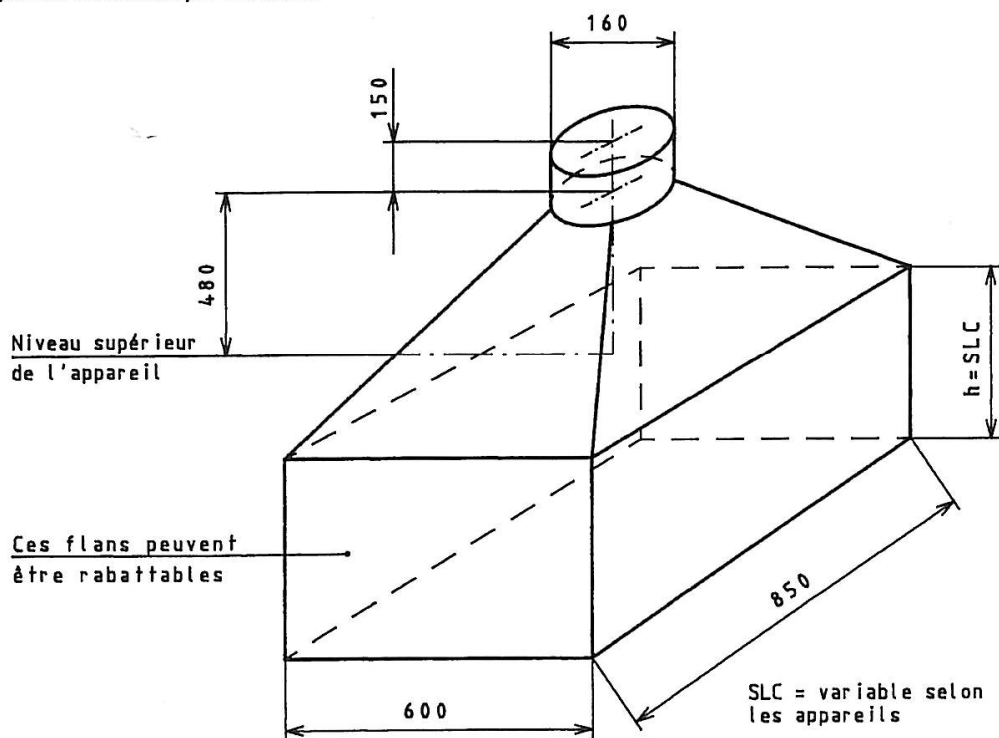


Figure B.2 : dispositif spécial pour le prélèvement moyen des gaz dans l'essai de contrôle de la combustion en local aéré

## **Appendix 2: Description of the tight room**

### **a) Room dimensions**

- |          |                     |
|----------|---------------------|
| - Volume | 17.5 m <sup>3</sup> |
| - Length | 3.5 m               |
| - Width  | 2.0 m               |
| - Height | 2.5 m               |

### **b) Room arrangement**

It is arranged in such a way that:

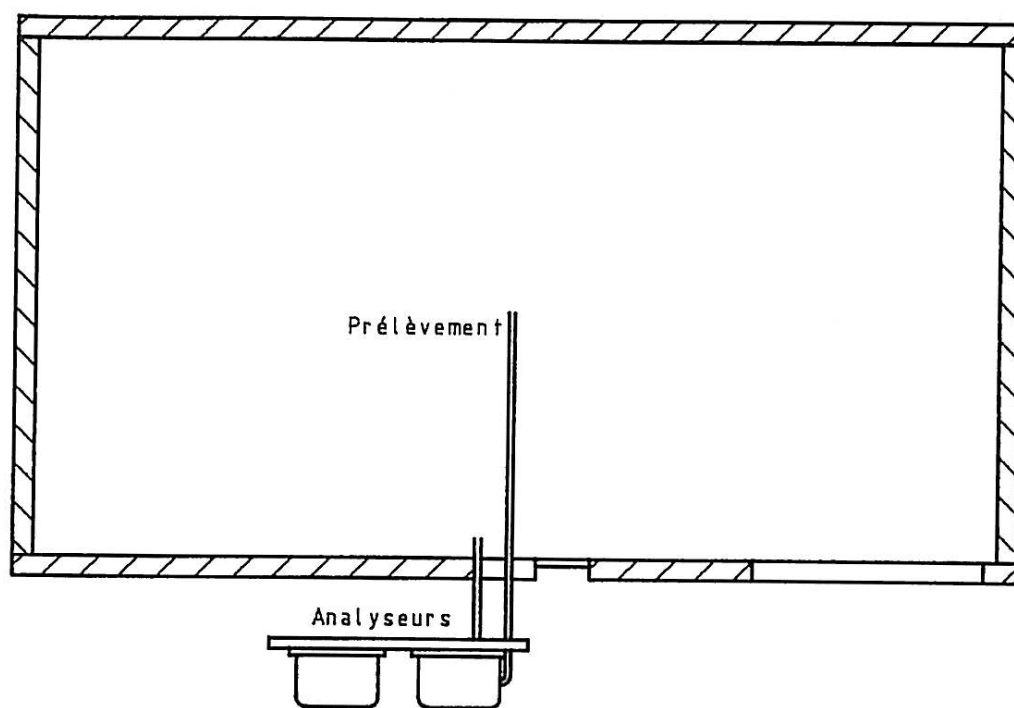
- the operator can observe the flames of the appliance in operation at any time
- the samples for measuring the CO<sub>2</sub> and CO levels can be taken in the geometrical centre of the room
- the dried sampled gasses can be reintroduced into the room after analysis
- the temperatures can be measured during the tests
- the homogeneity of the atmosphere is satisfactory for all CO<sub>2</sub> levels envisaged
- a return to the initial conditions (ambient temperature) is possible between tests by means of a suitable air conditioning system

The tightness of the room must not be affected by this system during the tests.

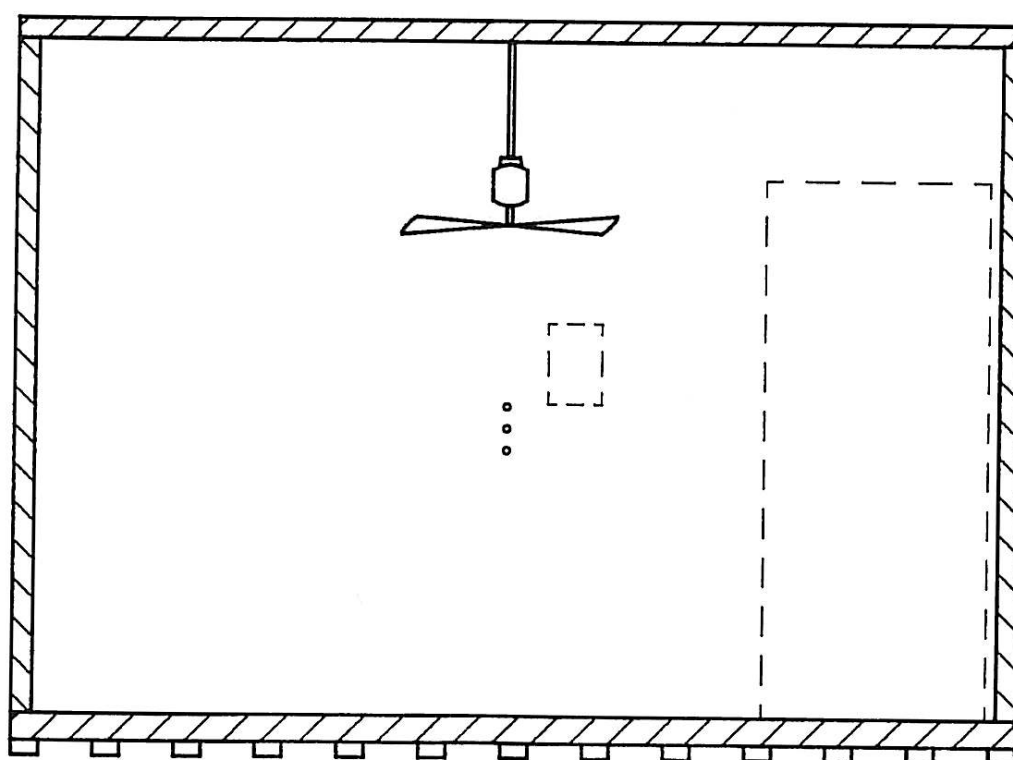
### **c) Physical characteristics of the room / tightness**

This is defined by the hourly reduction in the CO<sub>2</sub> level.

The operator creates a homogeneous CO<sub>2</sub> level of 4% +/- 0.2% in the room, without heating but by releasing CO<sub>2</sub> from a cylinder, and he checks after two hours that this level has fallen by less than 0.1%.



a) Plan — Échelle 1/25



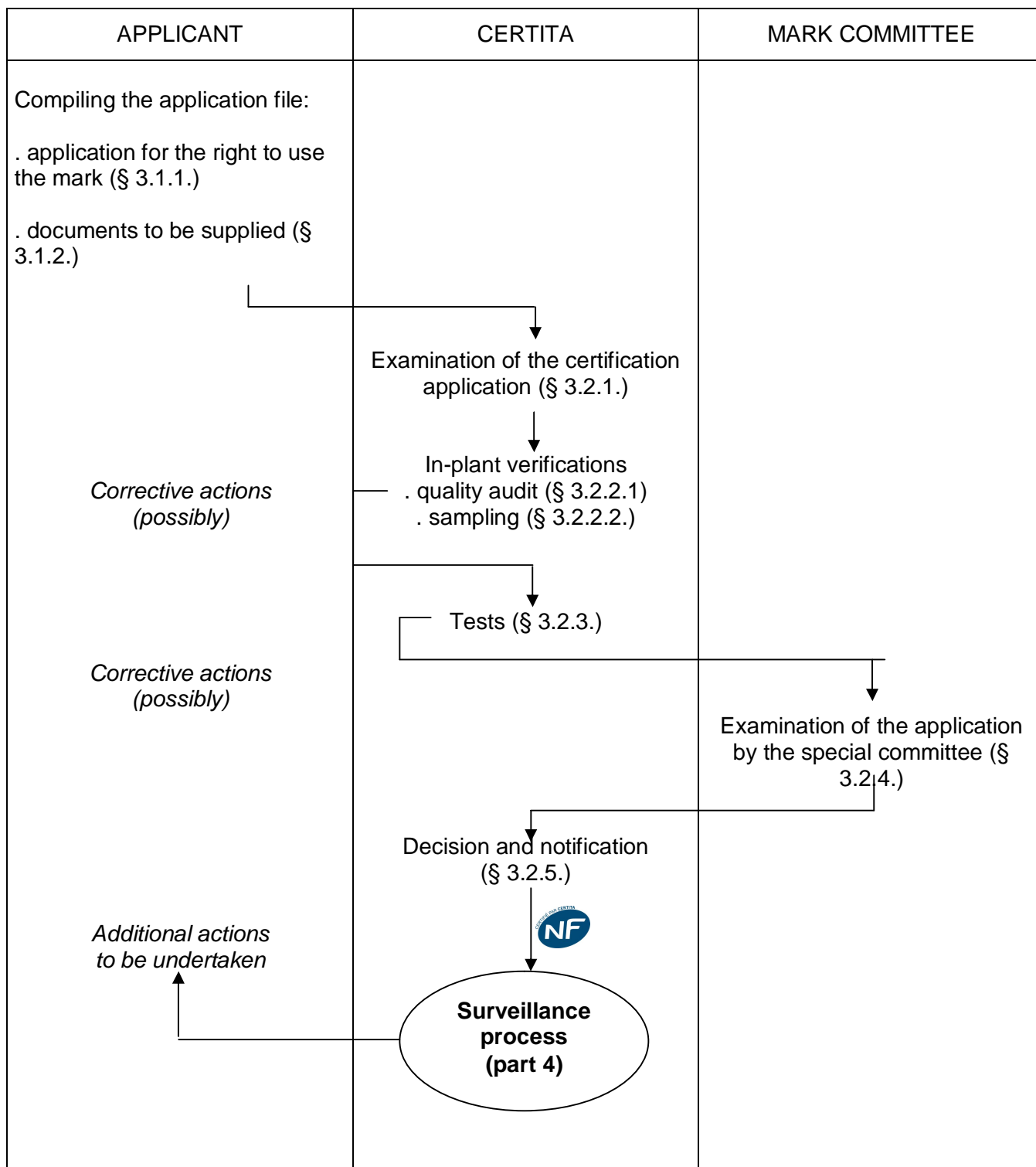
(en pointillé le hublot et la porte)

b) Face — Échelle 1/25

Figure A.1 : exemple de chambre étanche de 17,5 m<sup>3</sup>

## Part 3 OBTAINING CERTIFICATION

### PROCESS FOR OBTAINING CERTIFICATION





### 3.1 COMPILING THE APPLICATION FILE

Any applicant manufacturing one or more products covered by this application of the NF Mark can request the right to use the Mark. Such a request is hereinafter called the "Application" and the person making it is called the "Applicant".

#### 3.1.1. Application for the right to use the mark

Any applicant wishing to obtain the right to use the NF mark on a product he manufactures must first carefully read the certification reference standard for the mark and declare his acceptance of it.

The application is drawn up on the manufacturer's headed paper as shown in the model (form 1a) and must be sent to CERTITA.

It must specify the models and ranges presented for acceptance.

Vocabulary:

Type of decision	Description	Nature of the certificate issued
Acceptance	Granted following a first certification application for a product covered by this certification or for a new production site	First certificate or initial certificate
Extension	Done following a certification application for a new product from a party holding the NF mark	Modification of the existing certificate or new certificate if the family is different
Sustaining	Done following a certification application for a change in the brand and/or sales reference of a product under the NF mark	Modification of the existing certificate or new certificate if the distributor is different
Renewal	Publication by CERTITA of certificates reaching their end-of-validity date	Renewal of the certificate

Definitions:

*General*

Applicant:

Enterprise responsible, under the NF mark, for products covered by this certification

Manufacturer:

Enterprise responsible for putting the products covered by this certification on the market in the European Economic Area.

Authorised agent:

Representative of the party making the application, established within the territory of the European Economic Area, when the latter does not belong to a country in the European Economic Area. Generally the authorised agent is considered as the manufacturer.

Production site:

The place where the product or products are manufactured finished and packed. If all manufacturing operations are not done on the production site, audits may be performed on subcontractors of the production site who take part in the manufacture of the products covered by this certification.

Holder:

If the right to use the NF mark is awarded, the beneficiary is known as the "holder".

Distributor:

Enterprise which has its marks or sales references placed on the holder's appliances. The distributor may be the manufacturer, the agent or any other enterprise (see "application for sustaining" a certification in § 4.2.3.)

*For convectors:*

Range:

Set of products offered by a manufacturer.

Family:

Set of products identical as to their type, nature of system protecting against air contamination, rated combustion capacity, combustion mode, body shape.

Ex.: In the X category, several families may coexist (square, horizontal, vertical, oval casing).

Model:

Within a family, a model is characterised by: its generic type:

R for radiant

RS for blower radiant

SRE for blower with electronic regulation

in each category, its combustion mode:

for R and RS,	with burner BF (flame)
	with burner BL (laminar flow), bare or with accessories
	with burner BLCS (laminar flow, reduced section)
	the number of burners per heater

burner associated with a special wick:

- \* diameter,
- \* characteristics of the fabric,
- in-factory adjustment on the unit.

for SRE,    with ventilated combustion chamber  
                 ventilated  
                 pressurised vaporisation  
                 Bunsen type vaporisation

the auxiliary power supply mode, mains or non-rechargeable batteries,  
the number of pre-set burning rates,  
the type of security system preventing air contamination:  
the nominal consumption at maximum rate (for R and RS) and average rate between the two limit rates (for SRE),  
the useful output power, in Watts, nominal or maximum.

The maximum heating capacity of the electrical mode is limited to 25% of the heater's total power.

The shape of the body and the colour allow differentiation of one model from another.

For accessories:

Each accessory model is characterised by the heater for which it is submitted.

The applicant must send with his application a file containing, for each factory that manufactures the products for which acceptance to the mark is being sought, the documents or information specified in Para.3.1.2. below.

All documents must be written in French or English.

The application must be accompanied by full payment of the corresponding fee.

If the applicant is from a country within the European Economic Area, he must present his request jointly with an agent set up within the European Economic Area, duly accredited and responsible for all production for which acceptance to the NF mark is being sought and commercialised on French territory. This representative is known as the "agent".

In addition, the agent must take measures to guarantee after-sales service for the products commercialised;

This agent must be enrolled in the Companies Register and have satisfied the French legal obligations, especially in matters of insurance.

Prior to affixing the NF Mark, any modification made to the range defined for acceptance must be pointed out to CERTITA which will decide whether or not additional tests need to be carried out.

#### Example of an application and processing

The usual situation is as follows: the production site is outside Europe, an agent established in the European Economic Area is responsible for putting the products on the European market (the agent is the "manufacturer").

The application may be made by:

- Scenario 1: the manufacturing site,
- Scenario 2: the authorised agent.

Consequently the application (form 1a) must be drawn up:

- Scenario 1: by the production site on its headed paper, the appendix is completed by the agent, the production site signs as the party making the application (2 signatures) and the agent signs the appendix (1 signature),
- Scenario 2: by the agent on his own headed paper, the appendix is not filled in, the agent signs as the party making the application (1 signature) and the production site also signs the application (1 signature).

After acceptance of the products the holder will be:

- Scenario 1: the manufacturing site linked to the authorised agent,
- Scenario 2: the authorised agent.

The certificate(s) will be issued:

- Scenario 1: for the manufacturing plant and agent pair, mentioning the name and address of the production plant, and the name and address of the distributor if applicable,
- Scenario 2: for the agent, mentioning the name and address of the manufacturer's head office and production plant, and the name and address of the distributor if applicable.

### 3.1.2. Documents to be supplied

- Standard acceptance application letter written on the manufacturer's headed paper as shown in the enclosed model (form no. 1a with its appendix for applications from outside the European Economic Area)

including:

- . the general information sheet (form 1b)
- . the list of models for which the NF mark application is being made (form 1c-1 and/or 1c-2)
- A file containing:
  - Presentation of the manufacturing unit: localisation, other main products manufactured in the plant, general organisation of the plant, subcontracting.
  - . dimensioned drawing of all products
  - . technical data sheet indicating the characteristics of the presented mobile liquid fuel heaters and/or accessories and the various models,
  - . user's manual supplied with the mobile heater and/or accessories,
  - . marking of mobile liquid fuel heaters and/or accessories,
  - . quality manual and/or plan if possible (if these documents are not distributed outside the site, they must always be made available to the auditor during the audit),
  - . description of the manufacturing sequence and the inspection plan used (indicating measurements and tests carried out and their frequency),
  - . certificate of conformity of the quality management system (if appropriate),
  - . general organisational chart of the plant and organisational chart of the department in charge of quality,
  - . sales catalogue of manufactured products and/or accessories, distribution method(s),
  - . description of the various processes with input, output, activities involved in each process (with reference to standard ISO 9001:2008).

For all mobile liquid fuel heaters:

- . exploded view of each model,
- . nomenclature of the constitutive parts of each heater presented, specifying whether the parts are manufactured by the manufacturer or are subcontracted,
- . diagram of the electronic boards, with the nomenclature of their components,
- . initial validation report of the CO<sub>2</sub> detector used according to the specifications defined in part 2 § 2.1.2.4.3
- . declaration of non-use of asbestos in the manufacture of each model presented,
- . life cycle given for the heater, in years.

In addition, for SRE appliances:

- . Description of the controls and operating instructions
- . Safety provisions taken
- . Drawings inlet / outlets / sensor
- . Brief description of the program, timing,
- . List of errors codes,
- . Mechanical diagrams,
- . Electrical and electronic diagrams with components list, wiring drawings,
- . Parts list, layout drawing (electronic board),

. Information on components:

- \* Relay, thermostat, solenoid valves, engine, thermal fuse, ignition capacitor, transformers, optocouplers...)
- \* Suppliers (1, 2, ... sources)
- \* Certificates of conformity with European standards in force, from an independent body and less than 5 years old, for the following components:
- \* Electrical cables, electrical plugs, transformers, motors, switches when they are linked to mains (230 VAC),
- \* Spare parts: fuses, electronic boards, transformer, filter (to be determined after checking the drawings)
- \* Printed circuit board without components (if necessary),
- \* Any further information necessary to carry out the tests.
- \* The chart hereafter, duly completed:

Component	Reference	Name of the body on the certificate		Certificate included in the file		Number of components provided
		European	Other	YES	No	
Pump						
Relay						
Thermostat						
Engine						
Thermal fuse						
Ignition capacitor						
Transformer						
Optocoupler						

For the wicks needed for a heater already certified with the NF mark:

1. a letter to inform the holder of the mobile liquid fuel heater of the intention to put on the market a wick for the heater in question,
2. commitment of the holder of the NF mobile liquid fuel heater Mark to inform the manufacturer of the wick of any change on the heater(s) in question that may have consequences on the wick.

FORM No. 1a  
APPROVAL APPLICATION  
(to be drawn up on the manufacturer's headed paper)

**CERTITA**  
**39/41, rue Louis Blanc**  
**92400 COURBEVOIE**

**For the attention of the Chairman**

SUBJECT: Application for the right to use the NF Mark-MOBILE LIQUID FUEL HEATERS

Dear Chairman,

I the undersigned (name and position) .....  
representing the company (identification of the company - head office) .....  
request CERTITA to carry out the verifications required for obtaining the right to use the NF Mark for the  
products specified in the enclosed table, complying with the specifications defined in part 2 of the NF 128  
certification reference standard.

These products are manufactured in the factory of (company identification and full address of the factory) .

I declare that I am familiar with the reference standards, the general rules of the NF Mark and the certification  
reference standard and I undertake to comply with them throughout the period of use of the NF Mark.

Date  
Stamp and signature  
of the applicant of the manufacturing site

Stamp and signature  
(if different from the applicant)

**APPENDIX TO THE ACCEPTANCE APPLICATION (1)**

Furthermore, I authorise the company (2).....  
represented by Mr. (name and capacity).....

to act in my name on the French territory for all matters concerning the use of the NF Mark.

For such purposes, I ask that the fees incumbent on me be invoiced directly to him. He hereby declares his  
acceptance to represent me and undertakes to settle the invoices on receipt.

I undertake to notify CERTITA immediately if I appoint a new agent to replace the agent named above.

I remain, Yours sincerely,

Date  
Stamp and signature  
of the applicant's representative (3)

Stamp and signature  
of the manufacturing site's representative (3)

- 
- (1) This appendix is only to be completed by applicants located outside the European Economic Area.  
(2) Designation of the representing company shall include: company name, legal form, head office and Companies Register  
number.  
(3) The signatures of the applicant and his representative must be preceded respectively by the hand-written words  
"Mandate agreed" and "Acceptance of mandate agreed".

**FORM 1b**

**GENERAL INFORMATION**

Name and address of applicant's company:

Contact:  
Telephone:  
Fax:  
e-mail:

Address of manufacturing unit:

Contact:  
Telephone:  
Fax:  
e-mail:

If applicable, name and address of agent in Europe:

Name and address of Customer Services Manager:

Drawn up at

date

Signature



FORM No. 1c-1

REFERENCE OF MOBILE LIQUID FUEL HEATERS  
SUBMITTED FOR ACCEPTANCE

Range	Reference of models	Claimed operating life (years)	Declared power (W)	Declared consumption (g/h)	Main device protecting against air contamination	Type of burner (if applicable)

Applicant's name

Date

Stamp and signature

FORM No. 1c-2

REFERENCE OF WICKS  
FOR MOBILE LIQUID FUEL HEATERS  
SUBMITTED FOR ACCEPTANCE

Reference of wicks:	Reference of mobile heaters	Material	Thickness (mm)	Height (mm)	Inner diameter (mm)	Diffusion rate (%)	Diffusion speed (s)

Applicant's name

Date

Stamp and signature

## 3.2 INITIAL ASSESSMENT PROCESS

### 3.2.1. Examination of the certification application

The application and enclosed file sent to CERTITA are examined before factory verifications and tests are carried out.

If some elements do not correspond to the requirements of the certification reference standard, CERTITA informs the applicant and only carries out the audit once a new file is presented and is judged to comply, in all aspects, with the requirements of the NF mark.

When the file is complete and the fees have been paid, preparations for a factory audit are begun and product samples are taken for testing.

### 3.2.2. In-plant verification

Examination of the application is preceded by an audit of the factory where the products presented for acceptance are manufactured. It also includes, where appropriate, an audit of the final transformation unit of the product. It is conducted by auditors who have given an undertaking to observe professional secrecy.

#### 3.2.2.1. Quality Audit

The auditor(s):

- Conduct a quality audit with the purpose of verifying the existence and effective implementation of the quality management system set up by the manufacturer and its conformity with the quality requirements in Part 2 of this reference standard.

This audit is conducted according to the general principles defined in standard ISO 19011 for conducting a quality audit. In particular, the scope of the audit and details of the procedure are specified in an audit plan sent to the company before the audit.

- Verify(ies) that the inspections stipulated in Part 2 have been carried out regularly for at least 3 months.
- Take(s) the samples required for the acceptance tests on a production lot. For convectors, a production of 500 appliances of each type submitted for acceptance must be effected (representing 10% of the manufacture of a minimum of 5,000).

The duration of the audit is 4.5 auditor days (including audit preparation, the audit itself and writing the report on site).

With the manufacturer's agreement, the auditors can take a copy of any document they consider necessary.

#### Case of companies holding certification of their quality management system

If the conformity of the quality management system is subject to a certification covering the sites and activities affected by the NF mark and awarded by an organisation meeting the requirements of standard NF ISO/IEC 17021 and recognised by CERTITA, the verification of the quality management provisions is reduced, as is the audit duration. In such a case, the duration of the site audit is 3 day (including audit preparation, the audit itself and writing the report).

The audit reports drawn up by the quality management system certifying body must be sent to the auditor or consulted on site.

At the end of the audit, the audit leader prepares an audit report drawing special attention to the effectiveness of the quality system set up, the strong points, weak points and a commented report of nonconformities. It also includes the report of tests carried out during the audit and the sampling sheet.

The audit leader prepares two copies of this report and sends one to CERTITA. He gives the original copy to the applicant.

The applicant informs CERTITA of any corrective actions adopted following the detection of nonconformities.

### 3.2.2.2. Sampling

If necessary, the auditors take the samples required for the tests from the end of the manufacturing line and/or the storage warehouses.

The samples taken are marked by the auditors with a distinctive sign used to authenticate them later, and must be accompanied by information allowing the manufacturing batch to be identified.

The samples taken are sent within 15 days by the manufacturer, and under his responsibility, to the independent laboratory (see Part 5 of this reference standard) charged with carrying out the tests, unless the auditors decide to take charge of them.

### 3.2.3. Tests

For mobile liquid fuel heaters:

The tests to be carried out by the independent laboratory on the products sampled during the audit are defined in the table below:

TESTS	SAMPLING	ACCEPTANCE TESTS
NF EN 35,300 <i>Specifications Part 2 §2.1</i>	1 per model	X
NF EN 60,335-1	2 per model	X
EMC	1 per model	X

A test report is drawn up for the tests and sent by CERTITA to the manufacturer.

The manufacturer informs CERTITA of any corrective actions adopted following the detection of nonconformities.

For wicks:

The tests to be carried out by the independent laboratory on the products sampled during the audit are defined in the table below:

TESTS	SAMPLING	ACCEPTANCE TESTS
PART 2 § 4.2	3	X

A test report is drawn up for the tests and sent by CERTITA to the manufacturer.

The manufacturer informs CERTITA of any corrective actions adopted following the detection of nonconformities.

#### **3.2.4. Examination of the application by the Special Committee**

A summary of the audit observations and test results is presented, anonymously, to the Special Committee.

The layout of this summary must clearly highlight any points where the products presented or inspections set up by the manufacturer do not comply strictly with the requirements defined in Part 2 of this certification reference standard.

After examining the various documents in the file, the Special Committee proposes to award or refuse the right of use.

#### **3.2.5. Decision and notification**

On the basis of the results obtained during the examination of the application, and on the basis of the proposals of the Mark Committee, CERTITA notifies the applicant of one of the following decisions:

- a) Award of the right to use the Mark
- b) Refusal of the right to use the Mark

A decision can be deferred in order to carry out additional examination of the application.

The applicant may appeal against the decision taken. The procedure is set out in Article 12 of the General Rules of the NF Mark.

If the right to use the NF mark is awarded, the beneficiary is known as the "holder". Maintaining this right is subject to the results of the verifications defined in § 3.2.6. and Part 4.

The exercising of the right to use the Mark is strictly limited to the products for which it was awarded, in other words the duly defined products from the duly defined factories, and manufactured under the conditions set out in this reference standard.

### 3.2.6. Checks after acceptance

Following the granting of the right to use the NF mark, an audit must be carried out on the production site during initial production and before the products are put on sale. Its purpose is to check the industrialisation of the products produced.

This audit is conducted according to the general principles defined in standard ISO 19011 for conducting a quality audit. In particular, the scope of the audit and details of the procedure are specified in an audit plan sent to the company before the audit.

The auditor takes the samples needed for carrying out the tests defined below on the production of a minimum of 5,000 items.

The tests to be carried out by the independent laboratory on the products sampled during the audit are defined in the table below:

TESTS	SAMPLING
NF D 35 300 <i>Endurance followed by a visual inspection, consumption and combustion quality (COn)</i>	10 per type (R, SRE)

The duration of the audit is 2.5 auditor days (including audit preparation, the audit itself and writing the report on site).

With the manufacturer's agreement, the auditors can take a copy of any document they consider necessary.

At the end of the audit, the audit leader prepares an audit report drawing special attention to the effectiveness of the quality system set up, the strong points, weak points and a commented report of nonconformities. It also includes the report of tests carried out during the audit and the sampling sheet.

The audit leader prepares two copies of this report and sends one to CERTITA. He gives the original copy to the applicant.

The applicant informs CERTITA of any corrective actions adopted following the detection of nonconformities.

If there is a serious breach of the Certification Reference Standard, CERTITA may, as a measure of conservation and after confirmation of the breach, make any of the decisions listed in § 4.1.8 (part 4). The decisions made are reported to the Special Committee.

### **3.3 ASSESSMENT PROCESS FOR THE ACCEPTANCE OF A NEW TYPE OF APPLIANCE (factory already has the NF mark)**

#### **3.3.1. Examination of the certification application**

The application and enclosed file sent to CERTITA are examined before factory verifications and tests are carried out.

If some elements do not correspond to the requirements of the certification rules, CERTITA informs the applicant and only carries out the audit once a new file is presented and is judged to comply, in all aspects, with the requirements of the NF mark.

When the file is complete and the fees have been paid, preparations for a factory audit are begun and product samples are taken for testing.

#### **3.3.2. In-plant verification**

Examination of the application is preceded by an audit of the factory where the products presented for acceptance are manufactured. It also includes, where appropriate, an audit of the final transformation unit of the product. It is conducted by auditors who have given an undertaking to observe professional secrecy.

##### **3.3.2.1. Quality Audit**

The auditor(s):

- Conduct a quality audit with the purpose of verifying the existence and effective implementation of the quality management system set up by the manufacturer and its conformity with the quality requirements in Part 2 of these rules.

This audit is conducted according to the general principles defined in standard ISO 19011 for conducting a quality audit. In particular, the scope of the audit and details of the procedure are specified in an audit plan sent to the company before the audit.

- Verify(ies) that the inspections stipulated in Part 2 have been carried out regularly for at least 3 months.

The duration of the audit is 2 auditor days (including audit preparation, the audit itself and writing the report on site). This audit can be combined with a monitoring audit, in which case its duration is reduced to 1 day.

With the manufacturer's agreement, the auditors can take a copy of any document they consider necessary.

The audit reports drawn up by the quality management system certifying body must be sent to the auditor or consulted on site.

At the end of the audit, the audit leader prepares an audit report drawing special attention to the effectiveness of the quality system set up, the strong points, weak points and a commented report of nonconformities. It also includes the report of tests carried out during the audit and the sampling sheet.

The audit leader prepares two copies of this report and sends one to CERTITA. He gives the original copy to the applicant.

The applicant informs CERTITA of any corrective actions adopted following the detection of nonconformities.

### **3.3.2.2. Sampling**

If necessary, the auditors take the samples required for the acceptance tests on a production batch from the end of the manufacturing line and/or the storage warehouses. For convectors a production of 10% of the initial order must be performed with a minimum of 5,000 appliances of each type.

The samples taken are marked by the auditors with a distinctive sign used to authenticate them later, and must be accompanied by information allowing the manufacturing batch to be identified.

The samples taken are sent within 15 days by the manufacturer, and under his responsibility, to the independent laboratory (see Part 5 of these rules) charged with carrying out the tests, unless the auditors decide to take charge of them.

### **3.3.3. Tests**

For mobile liquid fuel heaters:

The tests to be carried out by the independent laboratory on the products sampled during the audit are defined in the table below:

TESTS	SAMPLING	ACCEPTANCE TESTS
NF D 35 300 <i>Specifications Part 2 §2.1</i>	1 per model	X
NF D 35 300 <i>Endurance followed by a visual inspection, consumption and combustion quality (CO<sub>n</sub>)</i>	10 per type (R or SRE)	X
NF EN 60,335-1	2 per model	X
EMC	1 per model	X

A test report is drawn up for the tests and sent by CERTITA to the manufacturer.

The manufacturer informs CERTITA of any corrective actions adopted following the detection of nonconformities.



For wicks:

The tests to be carried out by the independent laboratory on the products sampled during the audit are defined in the table below:

TESTS	SAMPLING	ACCEPTANCE TESTS
PART 2 § 4.2	3	X

A test report is drawn up for the tests and sent by CERTITA to the manufacturer.

The manufacturer informs CERTITA of any corrective actions adopted following the detection of nonconformities.

### **3.3.4. Examination of the application by the Special Committee**

A summary of the audit observations and test results is presented, anonymously, to the Special Committee.

The layout of this summary must clearly highlight any points where the products presented or inspections set up by the manufacturer do not comply strictly with the requirements defined in Part 2 of these certification rules.

After examining the various documents in the file, the Special Committee proposes to award or refuse the right of use.

### **3.3.5. Decision and notification**

On the basis of the results obtained during the examination of the application, and on the basis of the proposals of the Mark Committee, CERTITA notifies the applicant of one of the following decisions:

- a) Award of the right to use the Mark
- b) Refusal of the right to use the Mark

A decision can be deferred in order to carry out additional examination of the application.

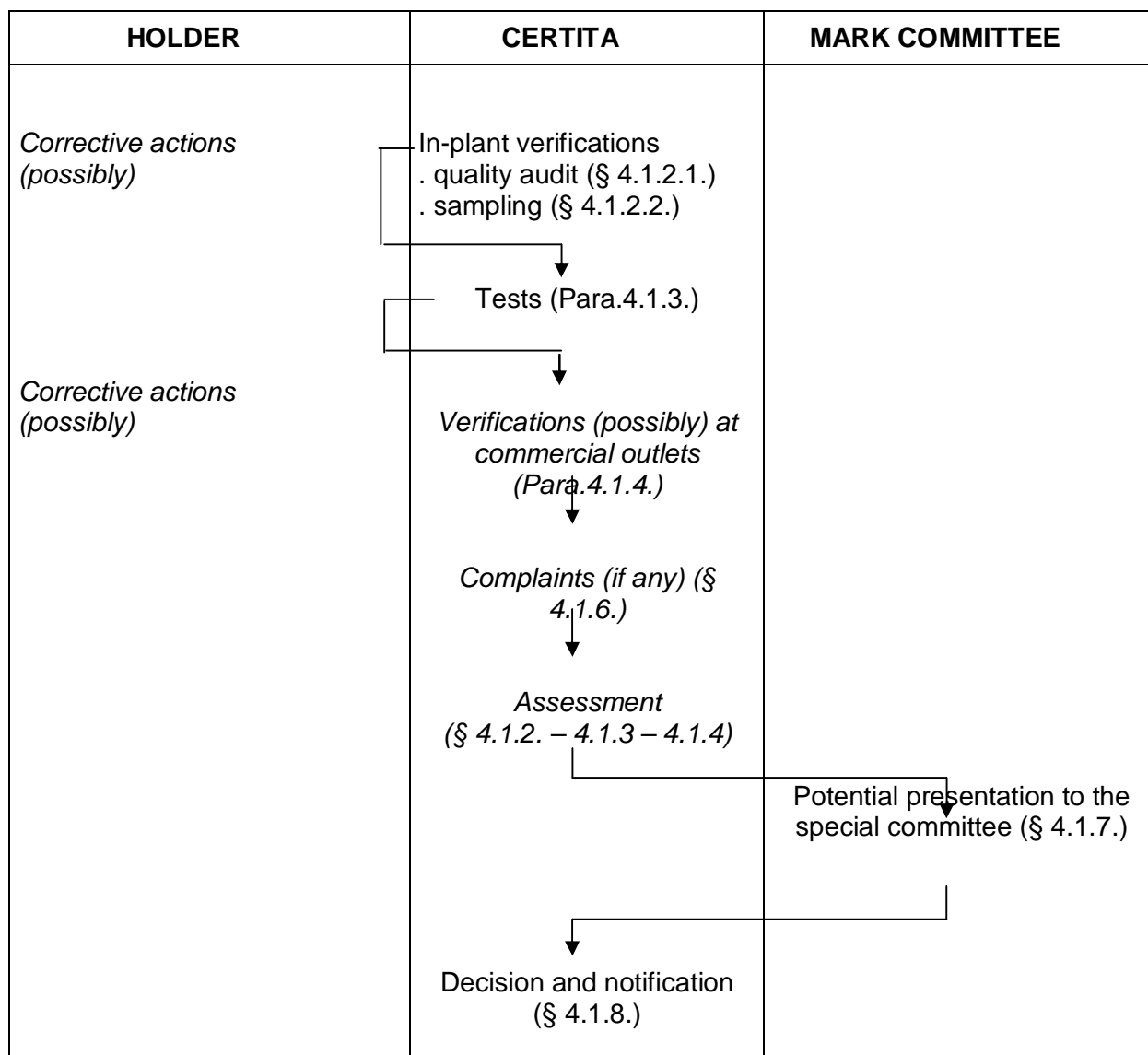
The applicant may appeal against the decision taken. The procedure is set out in Article 12 of the General Rules of the NF Mark.

If the right to use the NF mark is awarded, the beneficiary is known as the "holder". Maintaining this right is subject to the results of the verifications defined in Part 4.

The exercise of the right to use the Mark is strictly limited to the products for which it was awarded, in other words the duly defined products from the duly defined factories, and manufactured under the conditions set out in these Rules. "

**Part 4**  
**CERTIFIED PRODUCT SURVEILLANCE PROCESS □ MODIFICATIONS AND DEVELOPMENT**

**SURVEILLANCE PROCESS**



**MODIFICATION AND DEVELOPMENT OF COMPANY ORGANISATION OR THE CERTIFIED PRODUCT**

Modifications concerning the holder (§ 4.2.1.)

Transfer of production site (§ 4.2.2.)

Modification of the accepted product, new products (§ 4.2.3.)

Temporary stoppage of production or inspection (§ 4.2.4.)

Definitive stoppage of production or surrendering the right of use (§ 4.2.5.)

## **4.1 CERTIFIED PRODUCT SURVEILLANCE PROCESS**

CERTITA organises surveillance of certified products by carrying out verifications in the manufacturing unit or at commercial outlets. The purpose is to check that the manufacturer is fulfilling his obligations.

### **4.1.1. Frequency of verifications**

At least 2 audits per year are done on the production or processing site.

After a period of 2 years from the acceptance date, this frequency is reduced to 1 audit per year.

In the event of suspension (cf. § 4.1.8.) and if applicable, the audit frequency is increased to two audits per year for 2 years.

Additional audits may be carried out on the proposal of the Special Committee or at the initiative of CERTITA.

### **4.1.2. In-plant verifications**

The examinations carried out on the production site, and subcontracting site if applicable, concern primarily any modifications made since the previous audit that affect manufacturing, inspection methods or organisation of the quality management system.

At each audit:

- a quality audit is carried out according to the general principles defined by standard ISO 19011 concerning a quality audit (in particular, the scope and details of the procedures are specified in an audit plan sent to the company before the audit),
- if necessary, a sample of products is taken from stock (or failing this during manufacturing) for tests at the mark laboratory in order to check the validity of the results obtained by the manufacturer (see § 4.1.2.2.)

During the audit, the auditor has conformity tests carried out in his presence on accepted products, in order to verify the conditions under which inspections are carried out by the manufacturer. It is preferable to carry out these tests on the type sampled for tests in the mark laboratory.

With the manufacturer's agreement, the auditor can take a copy of any document he/she considers necessary.

#### **4.1.2.1. Quality Audit**

##### **a) Case of companies with a certified quality management system**

If the conformity of the quality management system is subject to a certification covering the sites and activities affected by the NF mark and awarded by an organisation meeting the requirements of standard NF ISO/IEC 17021 and recognised by CERTITA, the verification of the quality management provisions is reduced.

However it includes obligatory verification of the special requirements imposed by the NF mark (see Para.2.2.2 part 2).

The general requirements (Para.2.2.1 part 2) can be verified during the various annual follow-up audits by Gallup poll.

The audit reports drawn up by the quality management system certifying body must be sent to the auditor or consulted on site.

The duration of the audit is 1.5 day (including audit preparation, the audit itself and writing the report on site).

##### **b) Case of companies without a certified quality management system**

Verification of quality management measures must include, at every audit, verification of compliance with the specific requirements of the NF Mark (§2.2.2, Part 2) through processes defined by the manufacturer:

Identification and traceability,  
Preservation of product,  
Control of measuring and monitoring devices,  
Measurement and monitoring of product,  
Control of nonconformity,  
Corrective actions.

The other specific requirements are verified during the various annual follow-up audits (in alternation). The audit lasts 2 days (including the preparation of the audit, the audit itself and writing the report on site).

At the end of the audit, the audit leader prepares an audit report drawing special attention to the effectiveness of the quality system set up, the strong points, weak points and a commented report of nonconformities. It also includes the report of tests carried out during the audit and the sampling sheet.

The audit leader prepares two copies of this report and sends one to CERTITA. He gives the original copy to the applicant.

The holder informs CERTITA of any corrective actions adopted following the detection of nonconformities.

#### 4.1.2.2. Sampling

The sampling rules are as follows:

For mobile liquid fuel heaters:

"type of appliance" criterion as per the definition in NF D 35300

1 per type               - R or RS,  
                              - SRE

"number of models per type" criterion

1 per 5 models (commercial references)

Sampling may be performed at the holder's / agent's premises from his stock and by the Appointed Organisation, in its original non-open packaging or at commercial outlets for the yearly inspection tests.

The samples taken must be accompanied by information allowing the manufacturing batch to be identified.

They are marked by the auditor with a distinctive sign used to authenticate them later and sent within less than 15 days by the manufacturer, and under his responsibility, to the independent laboratory charged with carrying out the tests, unless the auditors decide to take charge of them.

#### 4.1.3. Tests

The tests to be carried out by the mark laboratory on the products sampled during the annual follow-up audits are defined in the table below.

For convectors:

TESTS	SAMPLING	TESTS ANNUAL FOLLOW-UP
Visual inspection	1	X
Examination of the marking and manual	1	X
Safety and performance tests, before endurance tests: Consumption CO,CO <sub>2</sub> ,Nox Reaction time of the safety device	1	X
Safety and performance tests after endurance tests: Consumption CO,CO <sub>2</sub> ,Nox Reaction time of the safety device	1	X
Examination of declaration of EMC and Low voltage conformity.	1	/
Electrical tests:  §7 Markings and indications §8 Protection against access to active parts active: insertability of test finger § 10 Power and current §13 Leakage current and dielectric strength at operating temperature §22 Construction §23 Internal conductors §24 Components §25.15 Connection to the mains and flexible external cables §27 Earthing arrangements (measurement of resistance) §29 Creepage distances, distances through the air and distances through insulation Note: the study of article 24 may involve an overheating measurement.	Tests conducted by random sampling	Twice over 6 years (RS and SRE)
EMC tests	1	Once every 3 years.

For accessories:

TESTS	SAMPLING	ANNUAL FOLLOW-UP TESTS
For wicks: Part 2 § 2.1.2.4.2	3 per model	X

CERTITA sends the holder a test report on sampling carried out during the audit.

The holder informs CERTITA of any corrective actions adopted following the detection of nonconformities.

#### **4.1.4. Verifications at commercial outlets**

Each year, at the start of the heating season, samples are taken according to the rules described in 4.1.2.2 of this part.

#### **4.1.5. Verifications of Customer Services**

Verifications are carried out twice over a 6-year period.

#### **4.1.6. Complaints**

If there are user complaints, the inspections may include sampling or tests at the places where accepted products are used (in this case the holder is invited to arrange for representation during the sampling and tests).

#### **4.1.7. Presentation to the Special Committee**

A summary of all inspections carried out is presented by CERTITA at least once a year to the Special Committee.

The documents examined during each session of the Special Committee must be presented anonymously.

Sanctions may be proposed by the Special Committee, if necessary.

#### **4.1.8. Decision and notification**

On the basis of audit results and proposals from the Special Committee, CERTITA notifies the holder of one of the following decisions:

- a) Renewal of the right to use the Mark providing comments or requesting corrective actions if necessary. This renewal may be accompanied by comments or corrective action requests.
- b) Renewal of the right to use the NF Mark, with formal notification to stop any infringements observed, within a given time period. This conditional renewal may be accompanied by increased inspections, tests and audits (which may be unannounced).
- c) Suspension of the right to use the Mark (suspension has a maximum duration of 6 months and is renewable once only. Thereafter, the right to use the mark is withdrawn).
- d) Withdrawal of the right to use the Mark.

For sanctions b), c) and d), the fees corresponding to additional audits are charged to the holder, regardless of the results. The decisions are enforceable from the date of their notification.

In the event of suspension, and depending on the gravity of the non-conformities observed, the following requirements may be demanded:

In relation to non-conforming products put on the market:

- Information to users about the risks,
- Cessation of the sale of products at distributors and/or in stock,

A minimum requirement for restoration of the right to use the NF mark is inspection and validation by CERTITA:

- Of the identification of the cause of the non-conformities observed,
- Of the adoption of corrective action on the products (in stock, sold and the following production),
- Of the lifting of the non-conformities by tests carried out at CERTITA on a modified appliance, supplied by the manufacturer or sampled by CERTITA.

In addition, the following additional action may be required:

- An additional audit of the production site,
- Additional tests at the mark laboratory on the model concerned, supplied by the manufacturer or sampled by CERTITA,
- Additional tests at the mark laboratory on the other models in the manufacturer's range, supplied by the manufacturer or sampled by CERTITA,
- Identification of modified appliances for which corrective action has been put in place,
- Information to CERTITA of the batch numbers of products identified as non-conforming and/or faulty parts.

If the restoration of the right to use the NF mark is granted the references of the models should be changed.

These requirements are not exhaustive. Some special cases may occasion demands for additional requirements.

The applicant may appeal against the decision taken. The procedure is set out in Article 12 of the General Rules of the NF mark.

If there is a serious infraction of the Certification Reference Standard, CERTITA may, as a measure of conservation, after confirmation of the infraction, make any decision provided for above. The decisions made are reported to the Special Committee.



## **4.2 MODIFICATION AND DEVELOPMENT OF COMPANY ORGANISATION OR CERTIFIED PRODUCT**

### **4.2.1. Modification concerning the holder or the authorised agent**

In the event of the merger, liquidation or acquisition of the holder's company, all rights that he might exercise concerning use of the Mark shall cease by full right (see Article 4.4 of the General Rules). The holder must inform CERTITA without delay of any decision likely to result at a later stage either in a modification of the company's legal status or a change of the company name.

It is up to CERTITA to examine the means by which a new application might be accepted (the Special Committee may be consulted beforehand).

If there is a change in the authorised agent, the initial assessment process must be carried out.

### **4.2.2. Transfer of the production site**

Before any total or partial transfer of the production to another production site, the holder must notify CERTITA, in writing, of the new production arrangements. The holder must cease to use the Mark until CERTITA makes a decision after an audit of the new production site and, if necessary, until presentation before the Special Committee (renewal of the right to use the NF Mark or examination of a new application, with fewer or complete tests).

### **4.2.3. Modifications to accepted products - New products**

#### **Application for extension of acceptance**

NF marked products shall conform to the technical file that was submitted with the application for acceptance, and shall take into account any observation made when the right to use the Mark was granted.

Consequently, any modification (including modifications concerning the manufacturing and inspection resources and the quality assurance system that could have a determining effect on production conformity) that the holder wishes to make on accepted products must also be communicated to CERTITA in writing.

An application for a new model and/or a new range takes the form of an application for extension of the right to use the NF Mark (forms 1a and 1c defined in Part 3) and updating of the file.

#### **Application to maintain the right to use the NF Mark**

The right to use the NF Mark granted to a product under a given designation or trade mark is not automatically extended to similar products from the same source, sold under a different designation or trade mark.

The procedure which enables this is called retaining the right to use the NF Mark.

Any holder of the NF Mark, intending to market this product through means of a distributor and under the latter's trade name, must file an application for maintaining the right to use the NF Mark according to the form in the appendix 3.

This application must be countersigned by the distributor (and the agent if necessary) and accompanied by the product technical data-sheet.

For mobile liquid fuel heaters:

- description of changes (hardware and software) and consequences for operation,
- the manufacturing inspection plan, if necessary,
- analysis of the hazard/modification pair (see Appendix 2)

For the wicks needed for a heater already certified with the NF mark:

- a letter to inform the holder of the mobile liquid fuel heater of the intention to put on the market a wick for the heater in question,
- commitment of the holder of the NF mobile liquid fuel heater Mark to inform the manufacturer of the wick of any change on the heater(s) in question that may have consequences on the wick.
- a description of the modifications and their consequences for the operation of the appliance.

The modification is examined on the basis of the table below and cannot be implemented until CERTITA has given its agreement. This response from CERTITA (acceptance, preliminary inspections or referral to the Special Committee) must be made within 15 days.

The samples required for carrying out tests are sent by the holder and under his responsibility, to the independent laboratory charged with carrying out the tests. They must be marked in a way that allows later authentication and be accompanied by information allowing the material batches used for their manufacture to be identified.

Type of change	Application sent to CERTITA	Examination of the Application	Extension notification conditions
Changes to the wick	Extension application	Tests: Consumption CO <sub>n</sub> CO <sub>2</sub> 2.3% CO over 8 hours' operation Temperatures Inspection of instructions and marking.	Authorisation granted by CERTITA on sight of the test results (without reference to the committee if there is no particular problem)
Modification of the burner or combustion chamber	Extension application	Tests: Consumption CO <sub>n</sub> CO <sub>2</sub> 2.3% CO over 8 hours' operation Temperatures Inspection of instructions and marking.	Authorisation granted by CERTITA on sight of the test results (without reference to the committee if there is no particular problem)
Modification of air contamination safety device	Extension application	Tests: Atmospheric safety	Authorisation granted by CERTITA on sight of the test results (without reference to the committee if there is no particular problem)
Modification of any other safety device	Extension application	Examination of the application by CERTITA and tests to be defined case by case.	Authorisation granted by CERTITA on sight of the test results (without reference to the committee if there is no particular problem)

Type of change	Application sent to CERTITA	Examination of the Application	Extension notification conditions
Modification of declared power	Extension application	Examination of the application by CERTITA Tests: option Inspection of instructions and marking.	Immediate authorisation granted by CERTITA
Modification of the ignition device (type R)	Extension application	Examination of the application by CERTITA and tests to be defined case by case.	Authorisation granted by CERTITA on sight of the test results (without reference to the committee if there is no particular problem)
Modification of the grill	Extension application	Dimensional measurement, Test finger Fabric flammability	Authorisation granted by CERTITA on sight of the test results (without reference to the committee if there is no particular problem)
Tank (moving)	Extension application	Sealing test at atmospheric pressure Overpressure test Safe filling Behaviour during operation (temperature, operations)	Authorisation granted by CERTITA on sight of the test results (without reference to the committee if there is no particular problem)
Fuel pump (SRE type)	Extension application	Consumption check CO <sub>n</sub> Temperatures Inspection of instructions and marking.	Authorisation granted by CERTITA on sight of the test results (without reference to the committee if there is no particular problem)
Claim for new liquid fuel	Extension application	Tests part 2 § 3.1	Authorisation granted by CERTITA on sight of the test results (without reference to the committee if there is no particular problem)

#### **4.2.4. Temporary stoppage of production or inspection**

The holder must inform CERTITA immediately of any temporary stoppage of production or inspection of an accepted product.

If the stoppage lasts less than 6 months, CERTITA, after seeking the Special Committee's opinion, can notify the holder that the right to use the Mark for the products concerned has been suspended or withdrawn.

If the stoppage last 6 months or more, the holder must ask for temporary suspension of the right to use the mark (maximum duration: 1 year). After this period, the right of use is withdrawn.

If the production is restarted, the manufacturer must notify CERTITA which will carry out an audit before the products are marketed under the NF Mark.

#### **4.2.5. Definitive stoppage of production or surrender of the right of use**

If the holder ceases production of an accepted product definitively or if he surrenders the right to use the Mark, he must inform CERTITA, indicating the time he considers necessary for depletion of the remaining stock of products bearing the Mark. CERTITA proposes the conditions under which the stock can be depleted, after consultation with the Mark Committee if necessary.

APPENDIX 1

SAMPLE IDENTIFICATION SHEET FOR TESTS  
FOLLOWING MODIFICATION

Name of company:

Identification of convectors and/or accessories submitted for acceptance tests:

Reference	Identification (batch no., date of manufacture)	Place of sampling (stock or during production)	Quantity

The samples must be sent to:

**M. FULTON - LNE/DE**  
**29, av. Roger Hennequin**  
**78 197 Trappes Cedex**

with a duplicate of this sheet.

The original copy of the sheet must be sent to:

**M. RAFFIER**  
**CERTITA**  
**39/41, rue Louis Blanc**  
**92400 COURBEVOIE**

Name and signature  
of the company manager:

APPENDIX 2

ANALYSIS OF THE HAZARD / MODIFICATION PAIR

Name of company:

Identification of convectors and/or accessories concerned:

POTENTIAL HAZARD	CONSEQUENCE OF MODIFICATION ON THE HAZARD	HANDLING OF IDENTIFIED HAZARD *	COMMENTS
CO intoxication			
CO2 emission in excess of standard			
Contact burn			
Fire			
Electrocution			
Explosion			
Others: To be specified			

Name and signature  
of the company manager:

*\* Note: A warning in the instructions and/or on the appliance are examples of handling the hazard.*

**APPENDIX 3**

**APPLICATION FOR MAINTENANCE OF THE RIGHT TO USE  
THE NF MARK**

(to be drawn up on the holder's or agent's letterhead and signed by the distributor)

**CERTITA**  
**39/41, rue Louis Blanc**  
**92400 COURBEVOIE**

**SUBJECT:** NF Mark - Mobile liquid fuel heaters  
Trade mark

Dear Chairman,

I wish to request the right to continue using the NF Mark on mobile liquid fuel heaters which I manufacture and which do not differ from the model authorised for the NF Mark except by the Mark and the Trade reference.

This application concerns the mobile liquid fuel heaters marketed through:

*(distributor's name and address)*

Approval reference for basic model		Trade mark(s) and reference(s) required by the distributor
Mark(s) and reference(s) already approved	Certificate no. of the NF Mark	

I enclose with this application, the undertaking of the distributor referred to above.

Stamp and signature of holder  
or of the authorised agent:

Stamp and signature  
of the distributor:

Date

**DOCUMENT INCLUDED WITH APPLICATION FOR MAINTENANCE OF THE RIGHT OF USE  
THE NF MARK**

(Distributor's undertaking to be prepared on the distributor's letterhead paper)

I the undersigned, .....

acting as .....

of the company: .....

acknowledge that the substitution of the trade name: ....., for that of the manufacturer on mobile liquid fuel heaters of the above-mentioned models, results in my assuming responsibilities pertaining thereto.

In particular, I declare that I hold an exclusive right to use these trade marks and references, having registered them in compliance with industrial property legislation in force,

I declare that I am aware of the standards relating to mobile liquid fuel heaters, of the general rules governing the NF Mark and of the Certification Reference Standard (in particular paragraph 3.1 concerning my commitments) and its appendices; and I undertake to respect them for the whole duration of use of the NF Mark.

Drawn up at                      on

Signature

Distributor's stamp:

Stamp and signature of the applicant  
or of the authorised agent:

## Part 5 PARTICIPATING ORGANISATIONS

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### 5.1 AUTHORISED ORGANISATION

AFNOR Certification entrusts sector management of the Mark application to CERTITA.

Under this authorisation, CERTITA is answerable to AFNOR Certification for all management operations entrusted to it, as set out in Article 7.1 of the General Rules of the NF Mark.

All persons involved in the NF mark process are bound to professional secrecy under Article 9 of the general rules of the NF mark. If necessary, on request from manufacturers, an agreement can be signed between CERTITA and the manufacturer.

### 5.2 AUDIT ORGANISATIONS

CERTITA entrusts the audits to the following organisations:

**CERTITA**

39/41, rue Louis Blanc  
92400 COURBEVOIE

**Laboratoire national de métrologie et d'essais (LNE)**

1, rue Gaston Boissier  
75724 PARIS CEDEX 15

The holder or applicant must facilitate the operations that auditors are required to carry out in the context of their mission.

### 5.3 TEST ORGANISATIONS

CERTITA entrusts the tests to the independent laboratories named below:

**Laboratoire national de métrologie et d'essais (LNE)**

Direction des Essais  
Département Isolation, Energie et Environnement  
29, avenue Roger Hennequin  
78197 TRAPPES Cedex  
Phone No. + 331 30.69.10.00.

The independent laboratories are chosen under the terms of the AFNOR Certification-COFRAC agreement concerning the choice of NF Mark test laboratories.



## 5.4 MARK COMMITTEE

### 5.4.1. Committee members

A special committee, whose powers are defined in Article 7.3.2 of the general rules of the NF mark, is set up and its composition is approved by CERTITA, with each member being informed of it by CERTITA.

The members have a mandate of 2 years, renewable by tacit agreement.

The chairman of the Special Committee is appointed by the LNE under the same conditions, after consulting the Special Committee. The rule is alternation between the colleges. However, the mandate of the chairman may be extended by one or more years if no candidate representing another college presents himself.

Members of the Special Committee exercise their functions on a strictly individual basis. However, if a member is absent, a proxy is appointed by the LNE.

CERTITA draws up the minutes of comments and proposals made during a committee meeting. This report is addressed to all members of the Special Committee.

### 5.4.2. Members of the Committee

1 Chairman (designated by the Committee members)

2 Vice-Chairmen:

1 representative of AFNOR Certification

1 representative of the authorised organisation: CERTITA

#### Suppliers, Manufacturers

5 representatives of the manufacturers, distributed as follows:

2 representatives of type R heaters manufacturers,

3 representatives of type RS or SRE heaters manufacturers.

1 representative of the professional association.

#### Users, consumers, application developers (4 to 6 representatives)

1 representative of the UFIP: Union Française des Industries du Pétrole (petroleum industry union),  
Representative of the petroleum companies,  
Representative of the consumer associations.

Experts, technical organisations

2 to 4 representatives including, inter alia:

Representatives of the auditing and testing organisations.

**5.4.3. Bureau**

For reasons of efficiency, the Special Committee may delegate its powers to a bureau whose members are appointed in name and must be chosen from the members of the Special Committee.

The bureau comprises the Chairman of the Special Committee, a representative of manufacturers, a representative of users, a representative of CERTITA, the representative of the laboratories and the representative of the qualified auditors.

The bureau meets as and when required.

A report of the work undertaken by the bureau is given during meetings of the Special Committee.

**5.4.4. Sub-committee or work group**

To manage certain non-recurrent tasks of a technical nature not requiring the convening of the members of the Special Committee, a sub-committee or work group can be created, its members being appointed in person and chosen from the members of the Special Committee.

In the case of a work group, professionals or other persons may be called in from outside.

The missions of this sub-committee or work group are specified by the Special Committee. Its powers are generally limited to preparing projects or proposals or supplying additional information on a given subject on behalf of the Special Committee.

## Part 6 APPLICABLE FEES – TERMS OF PAYMENT

### 6.1 APPLICABLE FEES

Fees for the services involved in obtaining certification and surveillance of certified products are indicated in a list of charges which may be revised annually. The list of charges for the current year is sent to all holders of the mark.

A special budget, decided each year in discussion with the committee, is set aside for promotional actions.

The fees are given in Euros, excluding tax. With regard to test fees, samples must be delivered to the mark laboratory carriage-free and customs-cleared if necessary, within 15 days at most from the time of sampling.

Test invoices are dispatched as soon as the laboratory is in possession of the samples.

#### 6.1.1. Fees for obtaining certification (for each production site) (in € pre-tax)

SERVICES PROVIDED
Technical examination of the file
Manufacturing site audit: preparing the audit, conducting the audit, producing the report and travelling (time) (travel and accommodation expenses charged additionally: see § 6.1.6.)
Customer services audit: preparing the audit, conducting the audit, producing the report and travelling (time) (travel and accommodation expenses charged additionally: see § 6.1.6.)
Tests of conformity with standard NF D 35-300 (by model) R type appliance (1 rates) R type appliance (adjustable) SRE type appliance 1 appliance per model sampled
Monitoring testing (NF D 35-300 tests, per model) R type appliance (1 rates) R type appliance (adjustable) SRE type appliance 10 appliances per model sampled
NF EN 50165 standard conformity tests (electrical safety)(per model) SRE type appliance
Electro-magnetic compatibility tests (per model) Battery appliance Mains powered appliance

### 6.1.2. CERTIFIED PRODUCT SURVEILLANCE (for each production site) (IN € PRE-TAX)

SERVICES PROVIDED
Quality monitoring of the file
Manufacturing site audit: preparing the audit, conducting the audit, producing the report and travelling (time) (travel and accommodation expenses charged additionally: see § 6.1.6.)
Customer services audit: preparing the audit, conducting the audit, producing the report and travelling (time) (travel and accommodation expenses charged additionally: see § 6.1.6.)
Monitoring testing (NF D 35-300 tests, per model) R type appliance (1 rate) R type appliance (adjustable) SRE type appliance Verifications in the Market
NF EN 50165 standard conformity tests (electrical safety)(per model) SRE type appliance Fixed file-processing costs
Electro-magnetic compatibility tests (per model) Battery appliance Mains powered appliance Fixed file-processing costs

### 6.1.3. EXTENSION OF ACCEPTANCE (IN € PRE-TAX)

SERVICES PROVIDED
Technical examination of the file (per series) . per application . per model
Audit: preparing the audit, conducting the audit, producing the report and travelling (time) . for one auditor, per audit day and day of travelling (travel and accommodation expenses charged additionally: see § 6.1.6.)
Tests of conformity with standard NF D 35-500 Depending on the requirement. The fees for individual tests are detailed in § 6.1.5
Tests of conformity with standard NF EN 50165 (electrical safety) Depending on the requirement.
Electro-magnetic compatibility tests (per model) Depending on the requirement.

### 6.1.4. ADDITIONAL VERIFICATIONS (IN € PRE-TAX)

SERVICES PROVIDED
Technical examination of the file
Audit: preparing the audit, conducting the audit, producing the report and travelling (time) . for one auditor, per audit day and day of travelling (travel and accommodation expenses charged additionally: see § 6.1.6.)
Tests: the cost of tests depends on the tests to be carried out in the context of additional verification. The fees for individual tests are detailed in Para.6.1.6

(1) this charge may be higher, depending on the amount of time required

### 6.1.5. FEES FOR EACH TYPE OF TEST (IN €PRE-TAX)

The test fees are payable as soon as the Authorised Body is in possession of the samples.

#### 6.1.5.1 Partial tests (standard NF D 35-300)

For convectors:

- marking and instructions
  - temperature of top of R type and grill + grill dimension
  - grill dimension
  - instantaneous intermittence
  - tank
  - impact/tipping over
  - examination of auxiliary power
  - temperature of cladding, ground, parts for gripping, fuel
  - inflammability
  - SRE blown air temperature
  - consumption per setting □ - neutral CO + Nox (NF or GS), per setting
  - air contamination safety device, per setting
  - combustion in sealed room (CO<sub>2</sub> at 2.3 %), per setting
  - operating durability over 250 hours
  - CO over 8 hours' operation, controlled-ventilation room
- Monitoring of electrical safety and EMC (per device)

#### 6.1.5.2 Wick tests

for original wicks (already tested for acceptance of a convector)

- 1 wick reference on a convector with one rate (tests on 3 samples)
- 3 wick references on three different convectors (one rate)
- 1 wick reference on a convector with two rates
- examination by file

for new wicks

- 1 wick reference on a convector with one rate
- 1 wick reference on a convector with two rates

### 6.1.6. INVOICING OF LIVING AND TRAVELLING EXPENSES

Food and accommodation expenses incurred by CERTITA (except those directly paid by the manufacturer) are subjects an invoice based on their actual cost.

Travelling expenses incurred by CERTITA (except those directly paid by the manufacturer) are subjects an invoice based on their actual cost.

### 6.1.7. CANCELLATION OF AN AUDIT

Total cancellation of an audit whose date has been fixed by agreement between CERTITA and the audited company is invoiced as follows:

- Cancellation 15 days to 8 days before the scheduled date: 50 % of the audit fee,
- Cancellation 7 days to 3 days before the scheduled date: 75 % of the audit fee,
- Cancellation 2 days before the scheduled date: 100 % of the audit fee.

## **6.2. TERMS OF PAYMENT**

### **6.2.1. COLLECTION OF PAYMENT**

CERTITA, the authorised organisation, is empowered to collect all payments.

Invoices issued by CERTITA must be paid within 45 days.

The applicant or holder must settle these invoices under the terms set out: any failure on the part of the holder will prevent CERTITA from exercising the inspection and operating responsibilities incumbent on it by virtue of this reference standard.

If the first enforcement order, sent by registered letter with acknowledgement of receipt, does not result in payment of the total amount due within one month, CERTITA will be entitled to take measures of conservation with regard to the right to use the NF Mark, for all of the holder's certified products.

### **6.2.2. OBTAINING CERTIFICATION**

The services payable for each factory are examination of the files, the audit and tests on the samples taken during this audit.

The fee for examination of the file is paid as a single sum when the application is filed and covers file examination (for a production site), presenting the file to the Special Committee and the contribution to the general management of the mark.

The test fee is payable once the laboratory in charge of the test is in possession of the samples.

No fees relating to examination of the application can be refunded, regardless of the result of the examination.

### **6.2.3. CERTIFIED PRODUCT SURVEILLANCE**

Invoicing covers the right to use the NF mark, passed on to AFNOR Certification, file monitoring, the audit and tests carried out on samples during this audit.

If acceptance is granted during the course of the year, the amounts invoiced correspond to the services provided. Invoices for tests are sent once the laboratory in charge of the tests is in possession of the samples.

After certification of a product, an annual fee for the right to use the NF mark is invoiced to the holder, by CERTITA (amount included in the fees mentioned above) and paid to AFNOR Certification.

This fee for the right of use, passed on to AFNOR Certification, is intended to cover:

- General operation of the NF mark (organisation of quality assurance, monitoring of organisations in the NF network, management of the certification committee),
- defence of the NF mark: registration and protection of the mark, legal advice, appeals management, legal fees.
- Contribution to the general promotion of the NF mark.

The fee for file monitoring cannot be refunded even if it is decided to withdraw the right of use.

#### **6.2.4. ADDITIONAL VERIFICATIONS**

Costs resulting from additional audits or tests are payable by the manufacturer, regardless of the results.

Additional examination of the file is also invoiced for the processing of inadequacies or anomalies observed by CERTITA or following sanctions proposed by the committee.

As long as the Holder has stocks of products bearing the NF Mark, inspections are continued and the corresponding fees are due.

#### **6.2.5. TRAVEL AND ACCOMMODATION EXPENSES**

Travel and accommodation expenses are to be paid for by the Applicant or the Holder.